

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTH ZONE AT CHENNAI

Application No. 239 of 2021

Navroz Kersasp Mody & Anr

... Applicants

Vs

The Auroville Foundation & Ors

... Respondents

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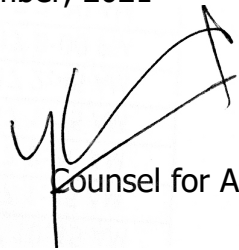
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Certified to be true copies of the respective originals

Dated at Chennai on this the 16th day of December, 2021


Counsel for Applicant

BEFORE THE NATIONAL GREEN TRIBUNAL SOUTH ZONE AT CHENNAI**Application No. 239 of 2021**

Navroz Kersasp Mody & Anr

... Applicants

Vs

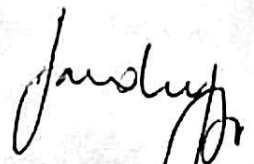
The Auroville Foundation & Ors

... Respondents

Affidavit filed by Sandeep Vinod Sarah

I, Sandeep Vinod Sarah S/o Vinod Gopalan, aged about 29 years residing at Panayoram, Fertile, Thelem Road, Auroville Tamil Nadu 605101, now come down to Chennai, do solemnly affirm and sincerely state as follows:

1. It is submitted that on account of the interim order passed by this Hon'ble Tribunal on 10.12.2021, the clearing and destruction of Darkali forest was halted, for which the applicants are grateful. However, the 1st respondent foundation has proceeded with work in the already cleared areas of bliss forest and with demolition of structures that allegedly fall in their chosen alignment of the crown road. It is apprehended that the respondent foundation will attempt to present and force a fait accompli situation by virtue of their illegal actions.
2. At the outset it is submitted that the Auroville foundation is attempting to implement a diagram in the Master plan in the real world without any micro-level planning, detailed development plan, feasibility studies, environmental and social impact assessments, without reference to ground realities and without consultation with the residents of Auroville. RTI replies show that no such studies have been conducted.
3. It is submitted that the residents of Auroville are not entirely opposed to the construction of the crown road or other infrastructure but want to ensure that any and all projects in Auroville are implemented only after necessary impact assessments, in compliance with the law and in a democratic manner. Any "development" has to be carried on in the least environmentally deleterious



manner. In fact, alternative alignments which drastically reduces the impact of the proposed road , that are hardly 10 meters away have been proposed to the 1st respondent,— but these aspects have not been considered by the respondent foundation.

4. It is submitted that comparing the percentage of forest areas cleared to the overall area and claiming that it is minuscule is misleading and an argument designed to prejudice. It is submitted that the question to ask is whether it is necessary to adopt a proposal having a certain impact, while a less deleterious alternative is available, without comprehensively studying its impact. In order to come to these conclusions, it is necessary to have an exhaustive environmental and social impact assessments conducted. In the instant case, the entire proposal is being pushed forward arbitrarily without information required to even come to an informed decision.

Master plan is not a project document

5. It is submitted that the master plan is only a broad vision document that proposes land use, envisages / proposes for provision of infrastructure facilities for projected population growth etc. This document does not deal with the nature, alignment, impact and feasibility of the proposed infrastructure. In fact, the Tamilnadu Department of Town and Country Planning's handbook describes a master plan in the following manner:

"Master plan is prepared for town and cities giving emphasize for zoning regulation for judicious use of urban land. Thus a Master Plan is a key development plan to provide land use allotment for residential, commercial, industrial, public and semi-public, traffic and transportation, parks, play fields and open spaces, etc., taking into consideration the existing land uses. The plans while suggesting for broader land use restrictions, will also identify the problem areas in traffic and transport, location for education, recreation site etc., and propose for provision of infrastructure facilities based on the projected population for that area."




6. The same document describes a Detailed development plan in the following manner:

"Detailed Development Plans are prepared in conformity with Master Plan proposals, prepared for smaller areas within the urban area. These are the action plans where the development projects and programmes are envisaged. It is a micro-level plan with detailed road network in which Master Plan is translated for development of specific area in the town which exhibits faster growth."

7. In fact, the 2001 master plan for Auroville is more generic than the master plans created for cities like Chennai. The master plan is only a policy framework. The master plan itself envisages the formulation of Detailed development plans to implement the proposals / infrastructure envisaged in the Master plan. The master plan was never intended to be rigid and provided for revision. The following clauses of the master plan are relevant :

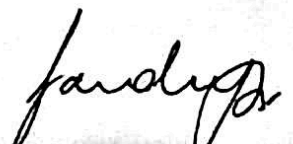
- a. "1.1.2 The master plan (Perspective 2025) provides a policy framework which will serve as a guide in the preparation of five year development plans and annual plans for implementation of the proposals... Part two lays down principles and directions for long term growth and gives development proposals to make auroville the most eco-friendly city. It lays down broad policies in terms of land utilisation, residential densities and qualitative aspects of infrastructure development."
- b. "2.3.1 Goals and objectives of the Masterplan (Perspective:2025)
- Laying down broad policies and directions for growth in the principal zones
 - Determining the hierarchy of roads and access ways.
 - Establishing the zoning of land use on all lands falling within the 20 Sq Km area of the township."



c. 2.11.1 Reviewing the Masterplan (Perspective: 2025)

Although the Master plan (perspective 2025) indicates a time horizon of 25 year, it will neither be traditional, nor static and rigid. In the framework of perspective 2025, the planning group would prepare a detailed five year development plan containing the priority items to be taken up for development..."

8. It is submitted that a thus, a detailed development is a sine qua non for implementation of the proposals in the master plan. It is also clear that the master plan only lays down broad policies and framework and is not intended to be a rigid document.
9. After the Master Plan for Auroville was gazetted in Part 3 of the Gazette of India in 2010, the 1st Respondent, acting through the Ministry of Human Resource Development issued a Standing Order dated 06.05.2011, constituting the Town Development Council ("TDC"). The TDC was mandated with the task of implementation of the Master Plan and the "prescribed authority" under the same. The 15 member TDC was to consist of 13 functional area experts drawn among the residents of Auroville and one nominee each of the Governing Board and the Resident's Assembly through the Working Committee.
10. It is submitted that no Detailed Development Plans, Zonal Plans or Local Area plans have been made by the TDC till date. The responsibility of the TDC in implementing the master plan is very important and as per the Standing Order of 06.05.2011, the TDC is tasked with framing rules and regulations for enforcing the master plan, obtaining endorsements and recognitions from appropriate state and central governments for implementing the master plan and to also secure the services of town planners, urban designers, consultants and experts in the implementation of the Master plan. The TDC also has to evolve processes to ensure the complete participation of the Auroville Residents in the implementation of the Master Plan.
11. It is submitted that several office orders were issued from time to time by the 1st Respondent constituting the TDC and the most recent Office Order



constituting the members of the Council was Office Order No: 491 dated 15.07.2021.

12. However, the Governing Board In Its 57th meeting held on 02.11.2021, has resolved to undertake certain activities in complete contravention of the procedure specified under the Act, Rules and the Standing Orders detailed above. A perusal of the minutes of the Governing Board would clearly demonstrate that the present activities whereby trees are being cleared under the guise of clearing the right of way for the proposed crown road project have no sanctity in law.

"The Board is of the view that the following action needs to be taken to accelerate the development of the Auroville Township:

2.1. On the occasion of Sri Aurobindo's 150th birth anniversary, a fresh impetus must be given to realise the Auroville Township in accordance with the Auroville Universal Township Master Plan within a time frame.

2.2. The Governing Board noted and endorsed the decisions already taken by the previous Governing Board on Auroville Township Development including planning and development as per the Auroville Master Plan and engagement with the Tamil Nadu Government to obtain statutory land use regulation (New Town Development Authority) for the Auroville Master Plan area to ensure land use as envisaged in the Auroville Master Plan.

....

2.5. The ATDC needs to complete the work of preparation of Detailed Development Plans (DDPs) based on the Auroville Master Plan.

2.6. Build the township infrastructure backbone (water, electricity, communication, sewerage, etc.) along the fully cleared RoWs to enable planned urban development.

2.7. A tree plantation drive may be initiated with immediate effect only in the green belt and the green corridors / network inside the city area as provided for in the Auroville Master Plan.



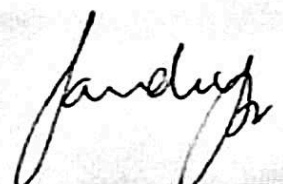
2.8. All Master Plan deviations on the land earmarked for the Crown have to be cleared so that the circular Crown Road and related infrastructure can be built without further delay. A similar exercise shall be implemented for the twelve radials and the outer ring road, where land ownership permits."

13. Thus, it is abundantly clear that the present activity – construction of the crown road – by clearing vegetation, felling of trees etc. are being undertaken without a Detailed Development Plan prepared by the TDC as mandated under the Master Plan for Auroville and have no sanction in law. Any so-called approvals, no-objection certificates and consents obtained by the 1st Respondent for tree-felling and other activities in the absence of such a Detailed Development Plan will run contrary to the procedure established by the various rules and regulations under the Auroville Foundation Act, 1988.

14. The lack of a Detailed Development Plan is also discussed in detail in a Report commissioned by the TDC to identify Auroville's Development Priorities for 2021-2026. The report calls for a complete review of the policies and observes that there is an urgent need to review Auroville's governance, development policies, priorities and programs in view of the fact that even the population of Auroville maybe only 5000 even as of 2030. The report dated April 2021 concludes with a Road Map as follows:

"While it is essential that the Auroville Town Development Council undertakes the preparation of a "Detail Development Plan" but the implementation of this plan is possible only if there are unified policies to guide and coordinate the programs and projects.

This study is the first step towards demonstrating the need for a unified policy planning body to ensure convergence between the policies of the various working groups to enable the Auroville Town Development Council – L'Avenir d'Auroville with competent urban planning consultants undertake the preparation of the "Auroville Detail Development Plan" that elaborate



these policies with supporting development programs and projects including annual budgeting."

15. It is submitted that the Masterplan was drafted in 2001 envisages that 15,000 residents will be in Auroville in 2010. However, even as on today, there are roughly 3300 residents. The projection in the April 2021 report states that even as of 2030, only 5000 people are expected to be residents in Auroville. The entire proposals in the Master plan are for a population and users that don't exist in reality. In fact, when the master plan was notified in the year 2010, the authorities ought to have seen that the projects and plan were not in sync with ground realities.

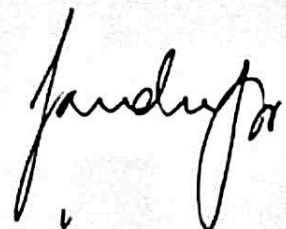
What needs to be done

16. It is submitted that the 1st respondent's attempt to justify their clearing of land, demolition of buildings and impacting waterbodies on the ground that it has found mention in the master plan is specious at best. The Master plan cannot be a substitute for plans and studies required to arrive at a reasoned, informed decision.

17. Firstly, a detailed development plan has to be prepared based on ground realities to identify necessary facilities, infrastructure etc and then a detailed project report, environment and social impact assessment for the proposals sought to be implemented have to be prepared, considering all alternatives. Based on the outcome of such assessments, a decision has to be taken as provided in the Auroville Foundation Act, on the course to be adopted.

Forests in Auroville

18. It is submitted that the 1st respondent appears to be under the mistaken impression that they own the resources in Auroville. The 1st respondent is at best a custodian of community resources. They only hold these resources in trust. The Forest resources and heritage of Auroville are entitled to be protected under the doctrine of public trust.



19. The respondent cannot claim that these forested lands are not entitled to protection as forests merely because they are not recorded or notified as forests. The respondent is the authority who ought to have proposed these forested areas for notification and protection as forest.

20. It is submitted that the history of development of forests, their biodiversity and importance to the region are well documented. The proposed alignment of the crown road cuts through forest areas such as Bliss (cleared illegally), Darkali and Gaia forests.

21. The forests within Auroville provide an incredible genetic resource for future restoration projects, as over 300 species of indigenous trees, shrubs and woody species are currently growing in the Auroville forests and producing viable seeds, which are collected and propagated in tree nursery within Auroville. Auroville has a forest cover density of 55 % (i-Tree Canopy report).

Damage caused to the forest – alternatives

22. In order to ascertain the damage caused to the forest areas till now, an assessment was conducted by highly qualified and experienced foresters in Auroville. The findings of the Arboriculture Report in connection with the clearing of Right of Way for the proposed Crown Road project give us a detailed overview of the various species of trees in these forests, the number of trees lost because of the on-going illegal activities of the 1st Respondent and the potential/future impact if the project is allowed to continue without any proper impact assessment studies.

23. The main summary of findings presented in the said report will explain the magnitude of the impact and how the same can be mitigated by even considering a mildly modified alignment.



For the crown road right of way:

- A total of 898 trees have been felled so far(Including some understory)- this includes 712 from Darkall Forest and 186 from Bliss Forest.
- The number of different tree species destroyed so far is 44
- If the same proposal is allowed to continue, a total of 4586 trees are under threat of being destroyed.
- The number of different tree species likely to be destroyed is 85
- If the alternative alignment proposed by the residents were to be followed, the total tree loss would only be 136.

24. According to the report, there is no integration of vegetation in the proposed project. All assets are wasted. It is financially and ecologically more viable to integrate vegetation in development plans, compared to replanting everything as mature specimens provide significantly more benefits than newly planted trees. (Doick et al., 2018). Cities containing urban forests and green infrastructure have been found to have significantly improved living conditions in comparison to cities with little or no urban forest strategies.

25. It is further submitted that the trees both destroyed and potentially affected are mainly species that have been classed under the Tropical Dry Evergreen Forest type and more specifically as the East Deccan Dry Evergreen Forests with the status: Critical/Endangered according to the World Wildlife Foundation.

26. On a request made by the 1st respondent, a study on the Crown Way road was prepared by a few experts who are residents of Auroville. The **Auroville Crown way Study** conducted in September 2021 examined the ground realities and present uses in the area on which the crown construction was proposed. According to this study, Darkali forest falling under Section 4 is described as follows:

"A beautiful forested area (approx 50 acres) in between two canyons one to the north and the other one on the south side and therefore it is also the lowest point in the Crown at about 40m above MSL (mean sea level). These two



canyons drain little over 60% of the area inside the Crown. This is also located in an area that has well drained soil which means it has high water percolation, which is good for aquifer/groundwater recharge. Most of the surface runoff is captured in the multiple water ponds within this forest, using bunds and check dams, and very little water overflows into the canyon (only during heavy continuous rains) going towards Kottakarai"

The report while describing the present use of this area states:

"Regenerated forested area from a barren eroded landscape over the last 35 years. Important water conservation area with bunding, check dams, and natural/newly created ponds. There are several small special gardens and the west side of the forest has a 1.2 kms long winding fitness track."

27. It is submitted that it is clear that the forested lands in Auroville like the Darkali forest and other areas are entitled for protection under Section 2 of the Forest Conservation Act, 1980.

Need for a proper Environment Impact Assessment

28. It is fundamental to environmental good governance and principles of sustainability and precaution that any action which has an impact on the environment is preceded by impact assessment studies.
29. It is submitted that the Rio Declaration (or Agenda 21) of 1992, states : "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities." It is submitted that the fulfilment of obligations require that the precautionary principle is followed in letter and spirit and prior environmental clearance is how the precautionary principle is applied in practice.
30. It is submitted that the UN general assembly adopted the World Charter for Nature (1982A/RES/37/7) on 28 October at the 48th plenary meeting inter alia recalling the need for appropriate measures at the national and international



levels to protect nature and promote international co-operation in that field. The charter at clause 11 provides,

"11. Activities which might have an impact on nature shall be controlled, and the best available technologies that minimize significant risks to nature or other adverse effects shall be used; In particular:

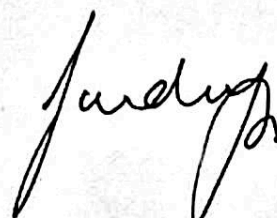
(a) Activities which are likely to cause irreversible damage to nature shall be avoided;

(b) Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed;

(c) Activities which may disturb nature shall be preceded by assessment of their consequences, and environmental impact studies of development projects shall be conducted sufficiently in advance, and if they are to be undertaken, such activities shall be planned and carried out so as to minimize potential adverse effects;"

31. It is submitted that subsequently, in 1987, the UNEP adopted "Goals and principles of Environmental Impact assessment has defined an EIA in the following terms " In the context of the identified goals and principles, an assessment of the impact of the planned activity on the environment is referred to as an environment impact assessment".

32. It is submitted that principle 1 of the same states, "States (Including their competent authorities) should not undertake or authorise activities without prior consideration, at an early stage, of their environmental effects. Where the extent, nature or location of a proposed activity is that it is likely to significantly affect the environment, a comprehensive environmental impact assessment (EIA) should be undertaken in accordance with the following principles".



33. It is submitted that subsequently, the Rio declaration on Environment and Development in 1992 mandated in no uncertain terms that prior environmental clearance is mandatory. Principle 17 states, "Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment are subject to a decision of a competent national authority."

34. It is submitted that principle 15 of the Rio declaration mandates that precautionary approach shall be widely applied. It is submitted that the principle behind prior impact assessment is rooted in the precautionary principle and the failure of the respondent to conduct such assessment vitiates the entire process.

35. In the instant case,

- Soil tests for any road and structural developments have not been conducted.
- Studies of elevation variations have not been conducted. The variation of the elevation on ground is significant and has seemingly never been taken into consideration. If ground elevation would have been studied it would have indicated that the "perfect geometry" of circular roads in Auroville is simply a mind projection coming from a 2 D perspective: Seen from bird eye's view, a circular road may look "perfectly round" while ground reality will show a different reality - a misleading understanding based on 2 D versus 3 D, or plan versus spatial perception.
- Detailed assessments have not been done for natural features like slope, canyons, drains, swales, ponds, recharge areas, estuaries and the large field of vegetation, trees and wildlife sanctuary. Their documentation and communication need then to be made available.
- Possibility of studies on alternative ways to address integration of infrastructure, eventually less invasive and less predominant in the urban context, is put aside.



- From the early stage of conception of the Galaxy and the Master Plan, the Green Belt and the City Area together formed the physical reality of Auroville. The Green Belt was an integrated part of Auroville. Following the present approach, the Green Belt with its activities and villages included, is entirely cut from the city area by a large road and related transit traffic. Detailed social and environmental assessments about the integration and interrelationship between the two core areas of Auroville and about how they are nurturing each other in their activities have not been conducted.

Piecemeal implementation – segmentation will mask true impacts

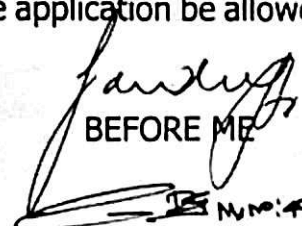
36. It is submitted that there is a need for comprehensive assessment of all such infrastructure projects proposed by the 1st respondent. The Crown way is one of the infrastructure projects being proposed to be implemented now. As can be seen from the minutes of the meeting of the 1st respondent, it was resolved to clear area and secure area for not just the Crownway but also for the twelve radials and the outer ring road. It is submitted that as can be seen from the reports, the extent of forests that need to be cleared, houses impacted etc. increase greatly for all these projects. The true impact of various components of the area development project sought to be implemented by the respondent have to be assessed together. The plan speaks of an 850 hectare area development project and the impact of this proposed development on not just the forests and hydrology and people of Auroville, but the impact on the villages in the area have to be assessed. A plan that has been prepared based on a "concept" cannot be implemented blindly and rigidly.

It is therefore submitted that the 1st respondent cannot claim any legal right to proceed with the subject project as they deem fit and the application be allowed as prayed for in the interest of justice.

Solemnly affirmed and signed his name

This the 16th day of December, 2021

At Chennai


BEFORE ME
ADVOCATE : CHENNAI
N-1, Vadhukla
No: 18, Birdanoram St,
Mylapore - 4

THE AUROVILLE FOUNDATION ACT, 1988

(N° 54 of 1988)

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THE SCHEDULE

The Auroville Foundation Act MINISTRY OF LAW AND JUSTICE
(Legislative Department) New Delhi, the 3rd October, 1988 Asvina
11, 1910 (Saka)The following Act of Parliament received the assent
of the President on the 29th September 1988 and is hereby
published for general information:

THE AUROVILLE FOUNDATION ACT, 1988

(N° 54 of 1988)

{29th September, 1988}

*An Act to provide for the acquisition and transfer of the
undertakings of Auroville and to vest such undertakings in a
foundation established for the purpose with a view to making long-
term arrangements for the better management and further
development of Auroville in accordance with its original charter and
for matters connected therewith or incidental thereto.*

Whereas Auroville was founded by the 'Mother' on the 28th day of
February, 1968 as an international cultural township;

And Whereas in view of the serious difficulties which had arisen
with regard to the management of Auroville, the management
thereof and been vested in the Central Government for a limited
period by the Auroville (Emergency Provisions) Act, 1980;

And Whereas under the management of the Central Government and under the overall guidance of the International Advisory Council set up under the aforesaid Act, Auroville had been able to develop during the last eight years along several important lines and the residents of Auroville have also carried on activities for the development of Auroville which need further encouragement and consolidation;

And Whereas Auroville was developed as a cultural township with the aid of funds received from different organisations in and outside India as also from substantial grants received from the Central and State Governments, and the United Nations Educational Scientific and Cultural Organisation also had, from time to time, reflected in its resolutions that the project on Auroville is contributing to international understanding and promotion of peace;

And Whereas for the purpose of encouraging, continuing and consolidating the aforesaid activities of Auroville, it is necessary in the public interest to acquire the undertakings of Auroville and to vest them in a body corporate established for the purpose;

Be it enacted by Parliament in the Thirty-ninth Year of the Republic of India as follows: -

CHAPTER I Preliminary

Short title

1. This Act may be called the Auroville Foundation Act, 1988.

Definitions

2. In this Act, unless the context otherwise requires,-

- (a) "appointed day" means the date of commencement of this Act;
- (b) "Auroville" means so much of the undertakings as form part of, or are relatable to, the cultural township which is known as Auroville and the charter of which was proclaimed by the 'Mother' on the 28th day of February, 1968;
- (c) "Council" means the Auroville International Advisory Council constituted under sub-section (1) of section 21;
- (d) "Custodian" means the person who is appointed as the Custodian under sub-section (2) of section 7 in respect of the undertakings;
- (e) "Foundation" means the Auroville Foundation established under sub-section (1) of section 10;
- (f) "Governing Board" means the Governing Board of the Foundation constituted under sub-section (1) of section 11;
- (g) "notification" means a notification published in the Official Gazette;
- (h) "prescribed" means prescribed by rules made under this Act;
- (i) "Residents' Assembly" means the Residents' Assembly of the

Foundation;

West Bengal Act
XXVI of, 1961

(j) "Society" means Sri Aurobindo Society, being a Society as defined in the West Bengal Societies Registration Act, 1961, and having its registered office at Calcutta in the State of West Bengal;

(k) "specified date" means such date as the Central Government may, for the purpose of section 9, by notification, specify;

(l) "trust" or "body" means a trust or body specified in the Schedule;

(m) "undertakings" means the undertakings of the Society, trust or body which had vested in the Central Government under section 3.

**CHAPTER II
ACQUISITION AND TRANSFER OF UNDERTAKINGS OF AUROVILLE**

Transfer to, and vesting in, the Central Government of certain undertakings of the Society, trusts and bodies

3. On the appointed day, so much of the undertakings of the Society, trust and body as form part of, or are relatable to Auroville, and the right, title and interest of the Society, trust and body, in relation to such undertakings, shall, by virtue of this Act, stand transferred to, and vest in, the Central Government.

General effect
of vesting

4. (1) The undertakings vested under section 3 shall be deemed to include all the assets, rights, leaseholds, powers, authorities and privileges, and all property (movable and immovable), including lands, buildings, works, workshops, projects, stores, instruments, machinery, automobiles and other vehicles, cash balances, funds, including reserve funds, investments and book debts of the Society, trust or body as form part of, or are relatable to, Auroville and all other rights and interests arising out of such properties as were immediately before the appointed day in the ownership, possession, power or control of the Society, trust or body, whether within or without India, and all books of account, registers, maps, plans and all other documents of whatever nature relating thereto.

(2) All properties and assets as aforesaid which have vested in the Central Government under section 3 shall, by force of such vesting, be freed and discharged from any trust, obligation, mortgage, charge, lien and all other incumbrances affecting them or of any attachment, injunction, decree or order of any court or other authority restricting the use of such properties or assets in any manner or appointing any receiver in respect of the whole or any part of such properties or assets shall be deemed to have been withdrawn.

(3) Any licence or other instrument granted to the Society, trust or body in relation to any undertaking which has vested in the Central Government under section 3 at any time before the appointed day and in force immediately before the appointed day, shall continue to be in force on and after such day in accordance with its tenor in relation to and for the purposes of such undertaking or where the undertaking is directed under section 6 to vest in the Foundation, the Foundation shall be deemed to be substituted in such licence or other instrument as if such licence or other instrument had been granted to the Foundation and the Foundation shall hold it for the remainder of the period for which the Society, trust or body would have held it under the terms thereof.

(4) If, on the appointed day, any suit, appeal or other proceeding, of whatever nature, in relation to any property or asset which has vested in the Central Government under section 3, instituted or preferred by or against the Society, trust or body is pending, the same shall not abate, be discontinued or be, in any way, prejudicially affected by reason of the transfer of the undertakings of the Society, trust or body or of anything contained in this Act, but the suit, appeal or other proceeding may be continued, prosecuted or enforced by or against the Central Government, or where the undertakings of the Society, trust or body are directed under section 6 to vest in the Foundation, by or against the Foundation.

Central Government or Foundation to be liable for certain prior liabilities **5.** Every liability in relation to any undertaking in respect of any period prior to the appointed day shall be enforceable against the Central Government and not against the Society, trust or body, or where the said undertakings are directed, under section 6, to vest in the Foundation, against the Foundation.

Power of Central Government to direct vesting of the undertakings in the Foundation **6.** (1) Notwithstanding anything contained in sections 3 and 4, the Central Government shall, as soon as may be after the appointed day, direct, by notification, that the undertakings and the right, title and interest of the Society, trust or body in relation to such undertakings which had vested in the Central Government under section 3, shall, instead of continuing to vest in the Central Government, vest in the Foundation either on the date of publication of the notification or on such earlier or later date as may be specified in the notification.

(2) Where the right, title and interest of the Society, trust or body in relation to the undertakings vest, under sub-section (1), in the Foundation, the Foundation shall, on and from the date of such vesting, be deemed to have become the owner in relation to such undertakings and the rights and liabilities of the Central Government in relation to such undertakings shall, on and from the date of such vesting, be deemed to have become, the rights and liabilities, respectively, of the Foundation.

Management, etc., of the undertakings **7.** (1) The general superintendence, direction, control and management of the affairs of the undertakings, the right, title and interest in relation to which have vested in the Central Government under section 3, shall, -

(a) where a direction has been made by the Central Government under sub-section (1) of section 6, vest in the Foundation; or

(b) where no such direction has been made by the Central Government, vest in a Custodian appointed by the Central Government under sub-section (2).

and, thereupon, the Foundation, or the Custodian so appointed, as the case may be, shall be entitled to exercise all such powers and do all such things as the Society, trust or body, as the case may be, is authorised to exercise and do in relation to its undertakings.

(2) The Central Government may appoint any person as the Custodian of the undertakings in relation to which no direction has been made by it under sub-section (1) of section 6.

(3) The Custodian so appointed shall receive such remuneration as the Central Government may fix and shall hold office during the pleasure of the Central Government.

Duties of persons in charge of management by undertakings to deliver all assets

8. (1) On the vesting of the management of the undertakings in the Foundation or on the appointment of a Custodian under section 7, all persons in charge of the management of the undertakings immediately before such vesting or appointment shall be bound to deliver to the Foundation or Custodian, as the case may be, all assets, books of account, registers and other documents in their custody relating to the undertakings.

(2) The Central Government may issue such directions as it may deem desirable in the circumstances of the case to the Custodian as to the powers and duties of the Custodian and such Custodian may also, if it is considered necessary so to do, apply to the Central Government at any time for instructions as to the manner in which the management of the undertakings shall be conducted or in relation to any other matter arising in the course of such management.

(3) Any person, who on the appointed day, has in his possession or under his control, any books, documents or other papers relating to the undertakings shall be liable to account for the said books, documents or other papers to the Central Government or the Foundation, as the case may be, and shall deliver them up to the Central Government or the Foundation or to such person or body of persons as the Central Government or the Foundation may specify in this behalf.

(4) The Central Government or the Foundation may take or cause to be taken, all necessary steps for securing possession of all undertakings which have vested in the Central Government or the Foundation under this Act.

(5) The Society, trust or body shall, within such period as the Central Government may allow in this behalf, furnish to that Government a complete inventory of all its properties and assets, as on the appointed day pertaining to the undertakings and, for this purpose, the Central Government or the Foundation shall afford to the Society, trust or body all reasonable facilities.

Certain powers of the Central Government or the Foundation

9. The Central Government or the Foundation shall be entitled to receive up to the specified date, to the exclusion of all other persons, any money due to the Society, trust or body in relation to its undertakings which have vested in the Central Government or the Foundation, as the case may be, and realised after the appointed day, notwithstanding that the realisation pertains to a period prior to the appointed day.

CHAPTER III THE AUROVILLE FOUNDATION

Establishment and
incorporation of the
Foundation

10. (1) With effect from such date as the Central Government may, by notification, appoint in this behalf, there shall be established for the purpose of this Act, a Foundation, to be called the Auroville Foundation.

(2) The Foundation shall be a body corporate by the name aforesaid, having perpetual succession and a common seal with power to acquire, hold and dispose of property, both movable and immovable, and to contract and shall by the said name sue and be sued. (3) The Foundation shall consist of the following authorities, namely:-

- (a) the Governing Board;
- (b) the Residents' Assembly;
- (c) the Auroville International Advisory Council.

Governing Board

11. (1) The Governing Board shall consist of the following members, namely:-

(i) not more than seven members to be nominated by the Central Government from amongst persons, who have-

(a) rendered valuable service to Auroville;

(b) dedicated themselves to the ideals of life-long education synthesis of material and spiritual researches or human unity;

(c) contributed significantly in activities that are being pursued or are envisaged to be promoted in Auroville, including activities relating to environment, afforestation, arts and crafts, industry, agriculture, humanities, sciences and integral yoga;

(ii) two representatives of the Central Government to be nominated by it.

(2) The Central Government shall nominate a Chairman of the Governing Board from amongst the members nominated by it under clause (i) of sub-section (1).

(3) The general superintendence, direction and management of the affairs of the Foundation shall vest in the Governing Board which may exercise all the powers and discharge all the functions which may be exercised or discharged by the Foundation.

(4) The Governing Board may associate with itself in such manner and for such purposes as may be prescribed, any persons whose assistance or advice it may desire in complying with any of the provisions of this Act and a person so associated shall have the right to take part in the discussions of the Governing Board relevant to the purposes for which he has been associated, but shall not have the right to vote.

(5) No act or proceeding of the Governing Board or any committee appointed by it under section 16 shall be invalidated merely by reason of,-

(a) any vacancy in, or any defect in the constitution of, the Governing Board or such committee; or

(b) any defect in the nomination of a person acting as a member of the Governing Board or such committee; or

(c) any irregularity in the procedure of the Governing Board or such committee not affecting the merits of the case.

Term of office of members

12. (1) Subject to the provisions of this section, the term of office of the members of the Governing Board including the Chairman shall be four years from the date of their nomination.

(2) An outgoing member of the Governing Board shall be eligible for re-nomination.

(3) The term of office of a member nominated to fill a casual vacancy in the Governing Board shall continue for the remainder of the term of the member in whose place he is nominated.

(4) A member may resign his office by writing under his hand addressed to the Central Government but he shall continue in office until his resignation is accepted by that Government.

Salary and allowances and other conditions of service of Chairman

13. The Chairman of the Governing Board shall be entitled to such salary and allowances and such conditions of service in respect of leave, pension, provident fund and other matters as may, from time to time, be fixed by the Central Government.

Meetings of the Governing Board

14. (1) The Governing Board shall meet at least once a year at Auroville at such time as may be fixed by the Chairman of the Governing Board.

(2) All the decisions at any meeting of the Governing Board shall be taken by a majority of the members present and voting:

Provided that in the case of equality of votes, the Chairman of the Governing Board shall have a casting vote.

Secretary and other officers of the Foundation

15. (1) The Central Government shall appoint a Secretary to the Foundation to exercise such powers and perform such duties under the Chairman of the Governing Board as may be prescribed or as may be delegated to him by the Chairman. (2) The Secretary shall be entitled to such salary and allowances and such conditions of service in respect of leave, pension, provident fund and other matters as may, from time to time, be fixed by the Central Government.

(3) Subject to such control, restrictions and conditions as may be prescribed, the Governing Board may appoint such other officers and employees as may be necessary for the efficient performance of its functions.

(4) The Chairman, Secretary and other officers and employees of the Foundation shall not undertake any work unconnected with their duties under this Act except with the permission of the Central Government.

Committees of the
Governing Board

16. (1) The Governing Board may appoint such committees as may be necessary for the efficient discharge of its duties and performance of its functions under this Act.

(2) The Governing Board shall have the power to co-opt as members of any committee appointed under sub-section (1), such number of persons who are not members of the Governing Board as it may think fit, and the persons so co-opted shall have the right to attend the meetings of the committee, and take part in the proceedings of the committee, but shall not have the right to vote.

Powers and
functions of the
Governing Board

17. The powers and functions of the Governing Board shall be-

(a) to promote the ideals of Auroville and to coordinate activities and services of Auroville in consultation with the Residents' Assembly for the purposes of cohesion and integration of Auroville;

(b) to review the basic policies and the programmes of Auroville and give necessary directions for the future development of Auroville;

(c) to accord approval to the programmes of Auroville drawn up by the Residents' Assembly;

(d) to monitor and review the activities of Auroville and to secure proper management of the properties vested in the Foundation under section 6 and other properties relatable to Auroville;

(e) to prepare a master-plan of Auroville in consultation with the Residents' Assembly and to ensure development of Auroville as so planned;

(f) to authorise and coordinate fund-raising for Auroville and to secure proper arrangements for receipts and disbursement of funds for Auroville.

Residents' Assembly

18. (1) The Residents' Assembly shall consist of all the residents of Auroville who are for the time being entered in the register of residents maintained under this section.

(2) The Secretary to the Government Board shall maintain the register of residents in such manner as may be prescribed and all the persons who are residents of Auroville and who are of the age of eighteen years and above are entitled to have their names entered in the register on an application made to the Secretary in such form as may be prescribed.

59 of 1989 (3) All the names of residents, which have been included in the register maintained by the Administrator appointed under section 5 of the Auroville (Emergency Provisions) Act, 1980 immediately before the appointed day, shall be deemed to have been included in the register maintained under this section.

- Functions of Residents' Assembly
- 19.** (1) The Residents' Assembly shall perform such functions as are required by this Act and shall advise the Governing Board in respect of all activities relating to the residents of Auroville;
- (2) In particular, and without prejudice to the foregoing powers, the Residents' Assembly may-
- (a) allow the admission or cause the termination of persons in the register of residents in accordance with the regulations made under section 32;
- (b) organise various activities relating to Auroville;
- (c) formulate the master plan of Auroville and make necessary recommendations for the recognition of organisations engaged in activities relatable to Auroville for the approval of the Governing Board;
- (d) recommend proposals for raising funds for Auroville for the approval of the Governing Board.
- (3) For the purpose of carrying on its functions, the Residents' Assembly may establish such committees as it may consider necessary which shall represent it in relation to the functions to be performed by the Governing Board.
- Working Committee of Residents' Assembly
- 20.** (1) There shall be a Working Committee of the Residents' Assembly which shall assist the Residents' Assembly or, as the case may be, the Governing Board, in discharging its duties under this Act.
- (2) The Working Committee shall consist of not more than seven members to be chosen by the Residents' Assembly from among themselves.
- (3) The manner of choosing the members of the Working Committee and their term of office shall be such as may be decided by the Residents' Assembly.
- (4) The Working Committee may, with the approval of the Governing Board, create or constitute other organisations, trusts, societies or associations relatable to Auroville if the Working Committee is satisfied that such organisations, trusts, societies or associations have-
- (a) their headquarters at Auroville;
- (b) declared that in all matters relating to Auroville they shall act in conformity with the decisions of the Governing Board and that their main object is to promote the ideals laid down in the Charter of Auroville proclaimed by the 'Mother' on the 28th day of February, 1968.

Advisory Council

21. (1) The Auroville International Advisory Council shall consist of not more than five members nominated by the Central Government.

(2) The Central Government may nominate the members of the Council from amongst persons who in its opinion are devoted to the ideals of human unity, peace and progress.

(3) The Council may, on its own motion or on a reference made to it by the Governing Board, advise the Governing Board on any matter relating to the development and management of Auroville.

(4) In tendering any advice to the Governing Board, the Council shall endeavour to secure that-

(a) the ideals for which Auroville has been established are encouraged, and

(b) the residents of Auroville are allowed freedom to grow and develop activities and institutions for the fulfillment of the aspirations and programmes envisaged in the said Charter of Auroville.

(5) There shall be a Chairman of the Council who shall be elected by the members of the Council from among themselves.

(6) The term of office of, the method of filling casual vacancies among, and the allowances and other remuneration, if any, payable to, the members of the Council, shall be such as may be determined by the Central Government.

(7) The Council shall have power to regulate its own procedure.

Dissolution of the Foundation

22. (1) The Central Government may, by notification and for reasons to be specified therein, direct that the Foundation shall be dissolved from such date and for such period as may be specified in the notification:

Provided that before issuing any such notification, the Central Government shall give a reasonable opportunity to the Foundation to make representation against the proposed dissolution and shall consider the representation, if any, of the Foundation.

(2) When the Foundation is dissolved under the provisions of subsection (1),-

(a) all members of the Governing Board, notwithstanding that the terms of their office had not expired, shall, from the date of dissolution, vacate their offices as such members;

(b) all powers and duties of the Foundation shall, during the period of dissolution, be exercised and performed by such person or persons as the Central Government may appoint in this behalf;

(c) all properties vested in the Foundation shall, during the period of dissolution, vest in the Central Government; and

(d) as soon as the period of dissolution expires, the Foundation shall be reconstituted in accordance with the provisions of this Act.

Grant by Central Government to the Foundation

23. For the purpose of enabling the Foundation to discharge its functions under this Act, the Central Government may, after due appropriation made by Parliament by law in this behalf, pay to the Foundation, in each financial year, such sums of money as that Government considers necessary by way of grant, loan or otherwise.

CHAPTER IV MISCELLANEOUS

Duty to furnish returns, etc.

24. (1) The Governing Board shall furnish to the Central Government at such time and in such form and manner as may be prescribed, or as the Central Government may direct, such returns and statements and such particulars as the Central Government may, from time to time, require.

(2) Without prejudice to the provisions of sub-section (1), the Governing Board shall, as soon as possible after the end of each financial year, submit to the Central Government a report in such form and before such date as may be prescribed giving a true and full account of its activities, policy and programmes during the previous year.

(3) A copy of the report received under sub-section (2) shall be laid, as soon as may be, after it is received before each House of Parliament.

Borrowing powers of the Governing Board

25. Subject to such rules as may be made in this behalf, the Governing Board shall have the power to borrow on the security of the properties of Auroville or any other asset for carrying out the purposes of this Act.

- Accounts and audit **26.** (1) The Governing Board shall maintain proper accounts and other relevant records and prepare an annual statement of accounts, including the income and expenditure account and the balance-sheet in such form as may be prescribed by the Central Government in consultation with the Comptroller and Auditor General of India.
- (2) The accounts of the Foundation shall be audited by the Comptroller and Auditor General of India at such intervals as may be specified by him and any expenses incurred in connection with such audit shall be payable by the Foundation to the Comptroller and Auditor General.
- (3) The Comptroller and Auditor General of India and any person appointed by him in connection with the audit of the accounts of the Foundation shall have the same rights and privileges and authority in connection with such audit as the Comptroller and Auditor General of India has in connection with the audit of Government accounts and, in particular, shall have the right to demand the production of books, accounts, connected vouchers and other documents and papers, and to inspect the office of the Foundation.
- (4) The accounts of the Foundation, as certified by the Comptroller and Auditor General of India or any other person appointed by him in this behalf together with the audit report thereon shall be forwarded annually to the Central Government and that Government shall cause the same to be laid before each House of Parliament.
- Act to have overriding effect **27.** The provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any other law for the time being in force or in any instrument having effect by virtue of any law other than this Act, or in any decree or order of any court, tribunal or other authority.

Contracts to cease to have effect unless ratified by the Foundation **28.** Every contract entered into by the Society, trust or body in relation to its undertakings for any service, sale or supply, and in force immediately before the appointed day, shall, on and from the expiry of one hundred and eighty days from that day, cease to have effect unless such contract is, before the expiry of the said period, ratified in writing by the

Central Government or, as the case may be, the Foundation, and in ratifying such contract, the Central Government or, as the case may be, the Foundation may make such alterations or modifications therein as it may think fit:

Provided that the Central Government or, as the case may be, the Foundation shall not omit to ratify a contract and shall not make any alteration or modification therein,-

(a) unless it is satisfied that such contract is unduly onerous or has been entered into in bad faith or is detrimental to the interests of the Central Government or, as the case may be, the Foundation; and

(b) except after giving the parties to the contract a reasonable opportunity of being heard and except after recording in writing its reasons for its refusal to ratify the contract or for making any alteration or modification therein.

Penalties

29. A person who,-

(a) having in his possession, custody or control any property forming part of the undertakings of the Society, trust or body, wrongfully withholds such property from the Central Government or, as the case may be, the Foundation or any person or body of persons authorised by that Government or the Foundation; or

(b) wrongfully obtains possession of, or retains, any property forming part of any undertakings of the Society, trust or body or willfully withholds or fails to furnish to the Central Government or, as the case may be, the Foundation or any person or body of persons authorised by that Government or the Foundation, any documents relating to such undertakings which may be in his possession, custody or control, or fails to deliver to the Central Government or, as the case may be, the Foundation or any person or body of persons authorised by that Government or the Foundation any assets, books of account, registers or other documents in his possession, custody or control relating to the undertakings of the Society, trust or body; or

(c) wrongfully removes or destroys any property forming part of the undertakings of the Society, trust or body,

shall be punishable with imprisonment for a term which may extend to two years, or with fine which may extend to ten thousand rupees, or with both.

Protection of action taken in good faith **30.** No suit, prosecution or other legal proceedings shall lie against the Central Government or any officer of that Government or the Custodian or any officer or other person authorised by that Government or the Foundation for anything which is in good faith done or intended to be done under this Act.

Power to make rules **31.** (1) The Central Government may, by notification, make rules for carrying out the provisions of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-

(a) the manner in which and the purpose for which any person may be associated with the Governing Board under sub-section (4) of section 11;

(b) the powers and duties which the Secretary to the Governing Board may perform under sub-section (1) of section 15;

(c) the control, restrictions and conditions subject to which the Governing Board may appoint officers and employees under sub-section (3) of section 15;

(d) the manner in which the register of residents may be maintained under sub-section (2) of section 18;

(e) the time within which and the form and manner in which the Governing Board may furnish returns and reports under sub-section (1) of section 24;

(f) the form and the date before which the Governing Board shall submit reports to the Central Government under sub-section (2) of section 24;

(g) the rules subject to which the Governing Board shall have the power to borrow under section 25;

(h) any other matter which is to be or may be prescribed.

Power to make regulations

32. (1) The Governing Board may make regulations, not inconsistent with this Act and the rules made thereunder, for enabling it to discharge its functions under this Act.

(2) Without prejudice to the generality of the foregoing power, such regulations may provide for all or any of the following matters, namely:-

(a) the procedure to be followed at meetings of the Governing Board or at the meetings of the committees appointed by it and the number of members which shall form a quorum at such meetings;

(b) the delegation to the Chairman, other members, Secretary or other officers of the Governing Board, of any of the powers, duties of the Governing Board under this Act;

(c) the traveling and other allowances payable to persons associated under sub-section (4) of section 11 or co-opted under sub-section (2) of section 16;

(d) the pay and allowances and leave and other conditions of service of officers (other than those appointed by the Central Government) and other employees of the Foundation;

(e) the maintenance of the accounts of the Foundation;

(f) the maintenance of the registers and other records of the Foundation and its various committees;

(g) the appointment by the Governing Board of agents to discharge on its behalf any of its functions;

(h) admission or termination of persons in the register of residents.

(3) No regulation made by the Governing Board shall have effect until it has been approved by the Central Government and published in the Official Gazette, and the Central Government, in approving the regulation, may make changes therein which appear to it to be necessary.

Rules and regulations to be laid before Parliament

33. Every rule or regulation made under this Act shall be laid as soon as may be after it is made before each House of Parliament while it is in session for a total period of thirty days which may be comprised in one session or in two or more successive sessions and if before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or regulation, or both Houses agree that the rule or regulation should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.

Power to remove difficulties

34. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order, not inconsistent with the provisions of this Act, remove the difficulty:

Provided that no such order shall be made after the expiry of a period of two years from the appointed day.

(2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament.

THE SCHEDULE

{See section 2 (1)}

TRUSTS AND BODIES

1. Auroville Trust, Auroville.
2. Artisana Trust, Auroville.
3. Auroservice d'Auroville Trust, Pondicherry.
4. Aurelec Trust, Auroville.
5. Auromitra, Auroville.
6. Centre for Scientific Research, Auroville.
7. Sri Aurobindo International Institute of Educational Research, Auroville.
8. Altecs Trust, Auroville.
9. New Engineering Trust, Auroville.
10. Auro Trust, Pondicherry.
11. Service Trust, Pondicherry.
12. Auro Press Trust, Pondicherry.
13. New Trust, Pondicherry.

S. RAMAIAH,
Secy. to the Govt. of India.

MINISTRY OF HUMAN RESOURCE DEVELOPMENT
(Department of Education)

New Delhi, the 10th November, 1997

G.S.R. 385.— *In exercise of powers conferred by section 3i of the Auroville Foundation Act, 1988 (54 of 1988), the Central Government hereby makes the following rules, namely:-*

1. Short title and commencement.-

- (1) These rules may be called the Auroville Foundation Rules, 1997.
- (2) They shall come into force on the date of their publication in the Official Gazette.

2. Definitions.-

- (1) In these rules, unless the context otherwise requires,-
 - (a) "Act" means the Auroville Foundation Act, 1988 (54 of 1988);
 - (b) "Chairman" means the Chairman of the Governing Board nominated under sub-section (2) of section 11;
 - (c) "FAMC" means the Funds and Assets Management Committee constituted by Governing Board under sub-section (1) of section 16;
 - (d) "Secretary" means the Secretary to the Foundation appointed under sub-section (1) of section 15;
 - (e) "section" means a section of the Act;
 - (f) "Working Committee" means the Working Committee of the Residents' Assembly constituted under section 20;
- (2) All other words and expressions used herein and not defined but defined in the Auroville Foundation Act, 1988(54 of 1988) shall have the meanings respectively assigned to them in that Act.

3. Casual vacancies in the Governing Board.-

- (1) Casual vacancy of a member of the Governing Board nominated

under clause (i) of sub-section (1) of section 11 shall arise on account of any of the following reasons, namely:-

- (a) on his death;
 - (b) on his resignation;
 - (c) if he has become of unsound mind and stands so declared by a competent court;
 - (d) if he has been adjudged as an insolvent;
 - (e) if he has been convicted for a criminal offence involving moral turpitude; or
 - (f) if he fails to attend three consecutive meetings of the Governing Board without the leave of the Chairman.
- (2) Casual vacancies of the members in the Governing Board caused by any of the reasons mentioned in sub-rule (1) shall be filled up through nomination by the Central Government.
- (3) A member nominated to fill a casual vacancy shall hold office only for the unexpired period of the term of the member in whose place he is nominated.
- (4) Where a member nominated to be a representative of the Central Government on the Governing Board becomes a member by reason of the office or appointment he holds, his membership of the Governing Board shall terminate when he ceases to hold that office or appointment, as the case may be and in his vacancy, his successor in office or the appointee shall automatically become a member of the Governing Board for the unexpired period of the term of the member in whose place he holds the office or is appointed.
- (5) The Governing Board shall function notwithstanding that any person who is entitled to be a member by reason of his office is not a member of the Governing Board for the time being and notwithstanding any other vacancy, whether by non-appointment or otherwise;

4. Powers of the Governing Board.

- (1) The Governing Board shall have powers-
- (a) to create such number of posts of officers and staff in the office of the Foundation as may be required for the efficient performance of its functions with the concurrence of the Government of India:

Provided that no such post the maximum pay of which exceeds *Rs.4500 per mensem shall be created or filled without the previous sanction of the Central Government;

(b) to appoint all categories of officers and staff to the office of the Foundation except the Secretary to the Foundation for conducting the affairs of the Foundation, in accordance with the regulations as may be made by the Governing Board and on the recommendation of duly constituted selection committees and to fix the amount of their pay and allowances, subject to the budgetary provision and to define their duties;

(c) subject to the other laws, to enter into agreements with the Central Government, State Governments, public or private organisations or individuals, foreign nationals and international non-governmental organisations, Government or Non-Government organisations or International Intergovernmental organisations for furtherance of the Foundation's objectives, for implementation of its programmes and for securing and accepting endowments, grants-in-aids, donations or gifts on mutually agreed terms and conditions in consultation with the Working Committee:

Provided that no such agreements shall be made with any foreign Government, Foreign Governmental Organisation or International or Inter-Governmental Organisation, foreign national or International non-governmental organisations, except with the prior approval of the Central Government.

(d) in consultation with the Working Committee and the FAMC of the Residents Assembly to acquire by purchase, lease, gift or otherwise any immovable property which may be necessary or convenient for the purposes of the Foundation ;

(e) to acquire by purchase, lease, gift or otherwise any movable property including any equipment which may be necessary or convenient for the purposes of the Foundation and in consultation with the Working Committee and the FAMC of the Residents' Assembly;

(f) to construct, alter, extend, modify and maintain any building or buildings which may be necessary or convenient for the purposes of the Foundation;

(g) to invest the funds of the Foundation or any other investible funds at the disposal of the Foundation in such securities or in such manner as

may, from time to time, be determined by the Governing Board and in accordance with Government of India's instructions on investment and, from time to time, to sell or transfer such investments in consultation with the Working Committee and the FAMC ;

- (h) to take over and acquire by purchase, gift or otherwise from Central Government, State Governments, public or private organisations or individuals or, subject to compliance with the other laws and approval of the Central Government, from foreign nationals and international non-Governmental Organisations movable and immovable properties or other funds together with any attendant obligations and engagements not inconsistent with the objects of the Foundation in consultation with the Working Committee and the FAMC ;

Provided that the prior approval of Central Government shall be necessary in those cases where the value of such properties or funds exceeds rupees one crore in any financial year;

- (i) to sell, transfer, lease or otherwise dispose of any immovable property of the Foundation in consultation with the Working Committee and the FAMC ;

Provided that no property of the Foundation shall be sold without the previous sanction of the Central Government if its value is more than rupees five lakhs.

- (2) Where a decision is required to be taken by the Governing Board in consultation with the Working Committee or FAMC, then such consultation shall be completed within a period of sixty days and the decision of the Governing Board after such consultation shall be final but in emergency matters consultation process may be completed in a week's time in consultation with working Committee and FAMC, if necessary by circulation of papers.
- (3) The Governing Board may with the previous sanction of the Central Government borrow, on the security of the properties of Auroville or any other asset, for carrying out the purposes of the Act in consultation with the Working Committee and the FAMC;
- (4) The Governing Board may, by resolution, sanction any expenditure or authorise making of a contract involving expenditure not inconsistent

See
P. 25/17

with the conditions of grant from the funds available at the disposal of the Foundation in the performance of its functions:

Provided that the Governing Board shall not enter into any contract involving expenditure in excess of Rupees one lakh or extending for a period of more than two years without prior approval of the Central Government.

5. Committees-

- (1) The following shall be the Committees of the Foundation, namely :-
 - (a) Finance Committee constituted by the Governing Board under sub-section (1) of section 16 ;
 - (b) Funds and Assets Management Committee (FAMC) constituted by the Governing Board under sub-section (1) of section 16 with the Secretary of the Foundation as its Convener and with not exceeding ten other members including the Financial Adviser, Ministry of Human Resource Development.
 - (c) Such other Committee or committees as may be constituted by the Governing Board under sub-section (1) of section 16 or by the Residents' Assembly under sub-section (1) of section 19, as the case may be.
- (2) Subject to the provision of sub-rule (1), the Governing Board shall determine the composition and functions of every Committee constituted by it.
- (3) The Residents' Assembly shall determine the composition and functions of every Committee constituted by it.
- (4) Subject to the provisions of these rules, the FAMC shall administer the funds and assets of the Foundation, tender advices, make recommendations and carry out such works as may be assigned to it by the Governing Board.

6. Powers and duties of the Secretary.-

- (1) The Secretary shall be appointed by the Central Government and shall be the Principal Executive Officer of the Foundation and shall exercise his powers and discharge his duties under the Chairman of the Governing Board.

(2) The Secretary shall

- (a) be custodian of the records, the Common Seal and such other properties of the Foundation as the Governing Board may commit to his charge;
- (b) have the powers to grant leave to all employees of the office of the Foundation except to himself and make necessary arrangement for the discharge of the functions of such employees during their absence;
- (c) issue notices and convene meetings of the Governing Board and its committees and the Auroville International Advisory Council with the previous consent of their respective Chairman;
- (d) keep the minutes of the meetings of the Auroville International Advisory Council, Governing Board and the Committees of the Foundation constituted under Section 16;
- (e) record the official proceedings and correspond on behalf of the Auroville International Advisory Council and the Governing Board and its Committees;
- (f) supply to the Central Government a copy of the Agenda of the meetings of the Governing Board, the Residents' Assembly and the Auroville International Advisory Council as soon as they are issued and the minutes of such meetings;
- (g) represent the Foundation in suits or proceedings, in v court or before any authority, by or against the Foundation, sign powers of attorney, verify pleadings and depute his representative for the purpose;
- (h) subject to the provisions of the Act and these rules, and the regulations maintain the Register of Residents as provided under the Act;
- (i) maintain the accounts of the Foundation and arrange for

preparation of annual estimates and statements of the accounts for their presentation to the Governing Board, the Residents' Assembly and the Auroville International Advisory Council;

- (j) *have the accounts of the Foundation finalized in consultation with the Working Committee in respect of units, trusts, schools and other institutions run by the Auroville residents;*
- (k) *furnish to the Central Government the statements and other papers required to be laid before the Houses of Parliament under the Act;*
- (l) *on behalf of the Governing Board, arrange to send all return and statements and such other particulars, as may be prescribed or as the Central Government may direct or require;*
- (m) *perform such other functions and exercise such other powers as may be specified in the Act, rules or regulations or as may be required by the Central Government or delegated to him by the Chairman, Governing Board or the Residents' Assembly;*

7. Association of persons with the Governing Board.-

- (1) *Subject to the provisions of sub-section (4) of the section 11 and these rules, the Governing board may associate with it any persons whose assistance or advice it may desire in complying with any of the provisions of the Act;*

Provided that the purpose of such association shall be directly related to the promotion of the aims and objectives of Auroville or any particular activity related to Auroville in regard to which special professional or technical advice required :

Provided further that the Association sought by invitation and the duration of the association would be clearly spelt out.

- (2) *A person associated with the Governing Board under sub-rule(1) shall have the right to take part in the discussions of the Governing Board relevant to the purpose for which he has been associated, but shall not have the right to vote.*

- (3) A person invited to associate with the Governing Board shall be paid by the Foundation per-diem daily allowance and travelling allowance at the maximum rates prescribed under the rules applicable to Group "A" officers of the highest grade in the Central Government:

Provided that no such person shall be paid any allowance in excess of such rates specified except with the prior approval of the Central Government.

8. Resident's Register

- (1) The Secretary shall, in accordance with the provisions of sub-section (2) of section 18, maintain a register of residents of Auroville who are of eighteen years and above of age and are entitled to have their names entered in the register.
- (2) The register of residents of Auroville shall be maintained in two Parts, namely, Part I and Part II.
- (3) Part I of the register shall contain, all the names of residents included in the register maintained by the Administrator appointed under section 5 of the Auroville (Emergency Provisions) Act, 1980 (59 of 1980) and Part II shall contain the names and other particulars of residents subsequently admitted to the register as residents of Auroville.
- (4) Part II of the Register of residents shall be in Form A appended to these rules.
- (5) The Register shall, at all reasonable times, be open for inspection by the members of the Residents' Assembly and any member of the Residents' Assembly desirous of obtaining a copy of extracts from it may apply to the Secretary showing the reasons for such application.
- (6) The Secretary shall, upon receipt of an application under sub-rule(5), issue a copy of extracts from the register.

9. Registration of residents.-

- (1) A resident of Auroville admitted to Auroville under the terms of sub-

section (2) of section 19 and who is of the age of eighteen years or above as on the date of application may submit an application in Form B appended to these rules to the Secretary for registering his name in the register of residents.

- (2) Every application submitted under sub-rule (1) shall be verified in the manner specified in the aforesaid Form.
- (3) On receipt of an application under sub-rule (1), the Secretary shall issue a receipt to the applicant and process the application as per the directions of the Residents' Assembly and the regulations made by the ^{GoI} Governing Board under section 32.

10. Funds of the Foundation.-

- (1) The funds of the Foundation shall consist of
 - (a) grants, loans and other monies sanctioned by the Central Government for the purpose of enabling the Foundation to discharge its functions under the Act;
 - (b) contribution to the Foundation received from other sources;
 - (c) income from the assets of the Foundation;
 - (d) borrowing on the security of the Auroville Foundation or any other asset as allowed by the Central Government; and
 - (e) receipt of the Foundation from other sources.
- (2)
 - (i) All monies received shall be deposited in one or more accounts at the State Bank of India or its subsidiaries or any other scheduled bank approved in this behalf by the Central Government.
 - (ii) All funds shall be paid into the Foundation's accounts with the Bank and shall not be withdrawn except through a cheque signed by such authorised person(s) as may be duly empowered in this behalf by the Governing Board, upto such limits and for purposes to be specified in the regulations.
 - (iii) Approval of the Central Government shall be obtained for depositing monies received in Banks other than scheduled Banks.

11. Protection of Auroville name and symbol.

In pursuance of the Act, the name or the symbol of Auroville shall not be utilised for any mark, name, brand name, patents, licence or trade mark of any sort for any commercial or non-commercial purpose unless its utilisation has been approved by the Governing Board in consultation with the Working Committee.

F O R M - A

[See rule 8(4)]

Register of residents of Auroville

1. Serial number :
2. Family name :
3. Name in full :
4. Auroville name :
5. Sex : Male/Female
6. Father's /husband's name :
7. Date of birth :
8. Personal Identification marks :
9. Passport number :
10. Date and place of issue of passport:
11. Period of validity of passport :
12. Occupation :
13. Marital status :
14. Nationality :
15. Address in Auroville :
16. Name and address of reference person in India/Home country :
17. Date of first arrival in India :
18. If presently out of India, last date of departure :
19. Details of Residential Permit issued by the Regional Passport Officer, Pondicherry. :

F O R M - B
[See rule 9(1)]
Application for registration

To

The Secretary
 Auroville Foundation,
 Auroville

Sir,

I hereby inform you that I am a resident of Auroville and am eligible for inclusion of my name in the register of residents of Auroville maintained by you under sub-section (2) of Section 18 of the Auroville Foundation Act, 1988 (54 of 1988).

My particulars are given below:-

1. Name in full :
(in capital letters)
2. Family name, if any :
3. Auroville name :
4. Sex : Male/Female
5. Father's/Husband's name :
6. Date of birth (in Christian Era) :
(supporting document to be attached)
7. Personal Identification marks :
8. Passport number :
9. Date and place of issue of
the Passport :
10. Period of validity of the Passport :
11. Occupation :
12. Marital status :
13. Nationality :
14. Address in Auroville :
15. Name and address of reference
person in India/Home country :
16. Date of first arrival in India :
17. If presently out of India, last

date of departure

18. *Details of Residential Permit*
Issued by the Regional Passport
Officer, Pondicherry

I hereby verify that the particulars given in this application are true to the best of my knowledge, belief and information and nothing has been concealed therefrom.

List of enclosures :

Yours faithfully,

Place :
Date :

Signature of the applicant

Receipt

Received an application dated _____ from _____ for registration of his/her name in the register of residents of Auroville.

Place:
Date:

Secretary

[No. F. 27-43/91-JU]
 D. P. SINGH, Director.



Auroville Universal Township

Master plan
(Perspective: 2025)



AUROVILLE FOUNDATION

TOWN & COUNTRY
PLANNING
ORGANISATION
GOVERNMENT OF INDIA
MINISTRY OF URBAN
DEVELOPMENT
& POVERTY ALLEVIATION



**THE AUROVILLE UNIVERSAL TOWNSHIP
MASTER PLAN
(Perspective: 2025)**

Auroville Foundation
Town & Country Planning Organisation
Government of India

This Master Plan is approved by the Ministry of Human Resource Development
via its letter No. F. 27-3/2000-UU, dated 12th April, 2001



मानव संसाधन विकास मंत्री
भारत
नई दिल्ली - ११० ००१
MINISTER OF
HUMAN RESOURCE DEVELOPMENT
INDIA
NEW DELHI-110 001

DR MURLI MANOHAR JOSHI

MESSAGE

The significance of Auroville can be understood properly only when we fathom into the very heart of the crisis through which humanity is passing today. As Sri Aurobindo points out, the crisis of today is evolutionary in character and can be resolved only if humanity turns upward towards the next step of evolution and realises universal fraternity.

Ancient India had spoken of the ideal of the whole world as One Family, - *vasudhaiva kutumbakam*. It is, therefore, heartening that this ancient ideal has been given an experimental field in Auroville, which the Mother founded on 28th February, 1968, in the light of Sri Aurobindo's vision of human unity.

Auroville is an alternative to the conflicting strategies that aim at mere freedom that hurts the values of equality and equity or at mere equality that tends to fetter the freedom of the spirit. In this context, Auroville stands out as a promise that liberty, equality and fraternity can meet together in a large synthesis.

It is gratifying that the Master Plan has not only been designed by the residents of Auroville and approved by the Governing Board, but the Town and Country Planning Office of the Union Ministry of Urban Development has also extended valuable collaboration and thus enhanced the excellence of this Plan.

UNESCO has adopted several Resolutions to recommend Auroville to the Member States for their support and the Government of India has also been extending support and assistance, not only through the Auroville Foundation Act, but also through activities of encouragement and recognition.

This Master Plan will serve as a further instrument through which Governmental and Non-Governmental help can be enhanced.

In welcoming this Master Plan, I wish to invite increasing and meaningful support for Auroville Universal Township.

[MURLI MANOHAR JOSHI]

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FOREWORD

The Auroville Universal Township envisaged by the Mother is one of the unique examples of manifestation of human unity in diversity. The township founded on a barren plateau devoid of any blade of grass in 1968 has become a green area shaded with a variety of trees and plants. The architectural designs, appropriate building technologies, conservation approach, rainwater harvesting, re-use and recycling of water resources, solid waste management, land re-generation, community participation are some of the areas where innovative models and techniques have been developed and adapted in the township.

As per Charter, Auroville belongs to the humanity as a whole and the one who is to live in Auroville must be willing servitor of Divine Consciousness. It is in this background the growth of Auroville needs to be seen. The township designed for an ultimate population of 50000 in an area of 2000 ha. would be a viable functional entity. Although the character and set up of the township may not be the same as that of any other town of similar size, functionally it requires to be a self contained township. The Master Plan of the township has, therefore, rightly envisaged development of economic zone alongwith residential, cultural

and institutional areas. The provision of green belt around the built up portion of the township would be an important environmental safeguard. Auroville is a different township from development management point of view and the Master Plan exercise has rightly recognised its uniqueness.

I am sure, Master Plan would channelise the future growth and development of Auroville as per the envisioned charter. Its development may provide a good model for emulation in other towns and cities as well. Contributions made by the Resident Assembly and the various other Aurovilian Working Groups in formulation of the Master Plan are praiseworthy symbolising active involvement of community groups in Master Plan exercise. I compliment Town and Country Planning Organisation of this Ministry and Auroville Foundation for drawing the Auroville Master Plan of international significance.

JAGMOHAN

Minister for Urban Development
and Poverty Alleviation,
Government of India

Dated : 25 Jan., 2001

PREFACE

Sri Aurobindo and the Mother have diagnosed the contemporary crisis of humanity as an evolutionary crisis which can be resolved only if the consciousness of universal fraternity can manifest and bring about actualisation of human unity. In order to aid this difficult objective, the Mother founded Auroville on 28th February 1968 as a Universal Township, 150 kms. south of Chennai in south India and gave it a Charter. This Charter declares that Auroville belongs to humanity as a whole and that to live in Auroville one must be a willing servitor of Divine Consciousness. It further declares that Auroville will be the place of unending education and constant progress, a bridge between the past and the future, and that it will be the site of material and spiritual researches for a living embodiment of an actual human unity.

The Mother envisaged the Auroville township of an ultimate population of 50,000, with Matrimandir as its centre and soul. Since its inception, the township has been growing steadily and today it has about 1,500 residents representing 35 nationalities.

The Auroville Foundation Act, 1988, enacted by the Government of India, is one of the important milestones in the

development of Auroville. It provides a statutory support for preparation of Master Plan of Auroville to ensure orderly and planned development of Auroville. The Auroville township is designed to be in an area of 2000 ha. in a circular form of which about 850 ha. have already been acquired by the Auroville Foundation. The Master Plan envisages systematic development of the Township and prevention of any non-conforming developments in the area.

The Master Plan based on the original concept given by the Mother envisages intertwining of four major functional zones, namely, Residential, Cultural, International, and Industrial, — around a Peace Area in the centre. About 25% of the township would be built up portion, surrounded by a green belt based on the concept of eco-friendly and sustainable development.

Innovative models and techniques in the field of afforestation, land development, water conservation, rainwater harvesting, building technology, community participation, energy saving, etc; incorporated in the Master Plan would be integral to the township development and management. Integrated urban and rural development strategies have also been envisaged.

Auroville is a unique township, the fundamental thrust of which

is centred on research, which is comprehensive and which transcends all creeds, all politics, and all narrowing ideologies. It encompasses the areas of the East and the West and human unity, of science and spirituality, of arts, crafts and technologies, and of all that pertains to the evolution of humanity through a process of evolutionary mutation leading up to the development of a new humanity or superhumanity. It can be described as a Centre of Advanced Research.

I appreciate the contributions made by the Residents Assembly of Auroville and its various groups. I would like to place on record my sincere thanks to the Planning Team of the Auroville Foundation, Mr. Roger Anger, Chief Architect of Auroville, and a number of individuals who have worked day and night to bring the Master Plan (Perspective: 2025) into its final form. I am particularly thankful to Shri G. Dattatri, Urban Advisor, who has inspired our Planning Team and devoted a good deal of his precious time by visiting Auroville frequently and working on this Master Plan (Perspective: 2025). My special thanks are to Shri D.S. Meshram, Chief Planner, Town and Country Planning Organisation, Government of India, and his colleagues, Shri J.B. Kshirsagar and Shri M.L.Chotani for their advice and collaboration in formulating this Master Plan (Perspective: 2025).

It would be relevant at this stage to record with great satisfaction that in our endeavours to develop the township and particularly in promoting and in establishing foundation for sustainable development, we have received great support from the Governmental and Non-governmental Organisations, besides national and international agencies. It is also noteworthy that UNESCO has passed five Resolutions at its General Conferences to express its support to the establishment and promotion of Auroville. I would also like to record with gratefulness the constant goodwill, encouragement and involvement of the Government of India, as also of the Governments of Tamil Nadu and Pondicherry.

I am happy that this Master Plan (Perspective : 2025) has been prepared jointly by the Auroville Foundation and the Town and Country Planning Organisation of the Union Ministry of Urban Development and Poverty Alleviation.

KIREET JOSHI
Chairman
Auroville Foundation



Part One
Existing Scenario



I.1 PREAMBLE

I.1.1 A Master Plan prepared for urban areas serves as an important instrument to guide the process of urban development. Over the years it has emerged as an important approach to urban planning in the country. The concept of the Master Plan has no doubt made a discernible impact in regulating and channelising the development and growth of cities and towns. However, the issue of the Master Plan and its efficacy has been discussed in a National Workshop organised by the Ministry of Urban Development and Poverty Alleviation, which suggested a dynamic, transparent and effective approach to improve the efficacy of the Master Plan. Accordingly, the Ministry of Urban Development and Poverty Alleviation, Govt. of India, entrusted a study to the Institute of Town Planners, India, on Urban Development Plan Formulation and Implementation (UDPFI) Guidelines. These guidelines have recommended a planning system consisting of a set of four interrelated plans with the Perspective Plan at its apex and Plans of Projects at the base, with the Development Plan and the Annual Plan facilitating the implementation of the Urban Perspective Plan. In line with these guidelines, this Master Plan (Perspective: 2025) of Auroville has been conceived.

I.1.2 The Master Plan (Perspective: 2025) provides a policy framework which will serve as a guide in the preparation of five year Development Plans and Annual Plans for implementation of the proposals. It is presented in three parts. Part One describes the existing scenario and lays down the imperatives for development. Part Two lays down principles and directions



The Mother

for long-term growth and gives Development Proposals to make Auroville the most eco-friendly city. It lays down broad policies in terms of land utilisation, residential densities and qualitative and quantitative aspects of infrastructure development. Part Three gives the development promotion regulations and the procedure to be adopted for development.

I.2 ORIGIN OF THE TOWNSHIP: THE VISION

I.2.1 In 1954 the Mother had envisioned that "There should be somewhere upon earth a place that no nation could claim as its sole property, a place where all human beings of

goodwill, sincere in their aspiration, could live freely as citizens of the world, obeying one single authority, that of the supreme Truth; a place of peace, concord, harmony, where all the fighting instincts of man would be used exclusively to conquer the causes of his suffering and misery, to surmount his weakness and ignorance, to triumph over his limitations and



Sri Aurobindo

incapacities; a place where the needs of the spirit and the care for progress would get precedence over the satisfaction of desires and passions, the seeking for pleasures and material enjoyments.

1.2.2 In this place, children would be able to grow and develop integrally without losing contact with their soul. Education would be given, not with a view to passing examinations and getting certificates and posts, but for enriching the existing faculties and bringing forth new ones. In this place, titles and positions would be supplanted by opportunities to serve and organize. The needs of the body will be provided for equally in the case of each and everyone. In general, intellectual, moral and spiritual superiority will find expression not in the enhancement of the pleasures and powers of life but in the increase of duties and responsibilities.

1.2.3 Artistic beauty in all forms, painting, sculpture, music, literature, will be available equally to all, the opportunity to share in the joys they bring being limited solely by each one's capacities and not by social or financial position. In this ideal place money would be no more the sovereign lord. Individual merit will have a greater importance than the value of material wealth and social position. Work would not be there as the means of gaining one's livelihood, it would be the means whereby to express oneself, develop one's capacities and possibilities, while doing at the same time service to the whole group, which on its side would provide for each one's subsistence and for the field of his work. In brief, it would be a place where the relations among human beings, usually based



Auroville's Inauguration

almost exclusively upon competition and strife, would be replaced by relations of emulation for doing better, for collaboration, relations of real brotherhood".

1.2.4 It was in the mid 1960s, however, that the City was concretised when the Mother said, "India is the representation of all human difficulties on earth and it is in India that there will be cure, and it is for that I had to create Auroville" because "from the spiritual point of view, India is the foremost country in the world. Her mission is to set the example of spirituality, Sri Aurobindo came on earth to teach this to the world".

1.2.5 Based on the work and inspiration of Sri Aurobindo and the Mother, Auroville is intended as a site for the manifestation of human unity in diversity. As such, it offers

itself as a testing ground and laboratory for the next step in human evolution. Auroville took root when the Mother identified the Banyan tree to be the physical centre of the City. The site is bounded by the sea to the east, the Kaluveli tank to the north, the Tindivanam Road to the west and Pondicherry to the south.

1.2.6 The Universal Township of Auroville was inaugurated on 28th February 1968 in the presence of 5000 people. Representatives of 124 countries and all the Indian states placed a handful of earth from their homelands in a marble-clad urn near the site of the Matrimandir at the centre of Auroville. This symbolised the creation of the city dedicated to human unity and international understanding. The Mother announced the Auroville Charter.

1.2.7 AUROVILLE CHARTER

1. Auroville belongs to nobody in particular. Auroville belongs to humanity as a whole. But to live in Auroville, one must be a willing servitor of the Divine Consciousness.
2. Auroville will be the place of an unending education, of constant progress, and a youth that never ages.
3. Auroville wants to be the bridge between the past and the future. Taking advantage of all discoveries from without and from within, Auroville will boldly spring towards future realisations.
4. Auroville will be a site of material and spiritual researches for a living embodiment of an actual Human Unity.

1.2.8 The Mother envisaged to develop Auroville as a township for 50,000 inhabitants with a circular form, covering an area of about 20 sq. km. Auroville received the unanimous endorsement of the General Conference of UNESCO in 1966, 1968, 1970 and 1983. It is now administered under the Auroville Foundation Act (Government of India Act no. 54, dated 29 Sept. 1988) which provides for the preparation of a Master Plan.

1.2.9 The Act also provides for the acquisition and transfer of the undertakings of Auroville and to vest such undertakings in a foundation established for the purpose with a view to making long-term arrangements for better management and further development of Auroville in accordance with its original Charter and for matters connected therewith or incidental thereto.

1.2.10 The relevance of Auroville to the country as a whole is to use all the researches carried out here diligently and with commitment, individually and collectively, in order to raise the overall quality of life. While conceiving the town, the Mother also evolved a form for the township; subdivided into four principal zones namely the Residential Zone, International Zone, Industrial Zone and Cultural Zone. The original sketch drawn by the Mother in her own hand is the basis for further development of the Auroville township.

1.3 LOCATION AND REGIONAL SETTING

1.3.1 Auroville is located 160 km south of Chennai on the



Auroville 30 years ago

east coast of India, just 6 km north of Pondicherry. Initially the site was a barren plateau traversed by dry canyons and gullied land with hardly any vegetation as depicted in the photograph. As may be seen in **Drawing 1**, Auroville Township is located along the East Coast highway which provides easy accessibility both from Chennai and Pondicherry. The regional setting of Auroville township indicated in **Drawing 2** reveals that

although it is part of Villupuram district of Tamil Nadu, functionally it is closely connected to Pondicherry.

1.3.2 As mentioned earlier, the township boundary is in the form of a circle of 2.5 km radius encompassing 20 sq. km. Most of the area lies in Villupuram district and comprises the panchayats of Irumbai and Bommapalayam. Small areas of this land are in Kottakuppam, Rayapudupakkam, Mathur Panchayats and Alankuppam, within the Union Territory of Pondicherry. The land is generally of poor quality for agriculture and the entire area was identified as a backward area.

1.3.3 The village settlements of Edayanchavadi, Irumbai, Kottakarai, Rayapudupakkam, Pettai and Alankuppam fall in the designated area of the township. The present population of these village settlements is about 8,000 persons. The village settlements of Kuilapalayam, Acharampattu and Oddampalayam are just on the periphery of the township and their population is about 3,000 persons.

1.3.4 Pondicherry city, with a population of about 4 lakh (1991), is the largest urban centre at a distance of 6 km to its south while Tindivanam, the headquarter of Tindivanam taluk with a population of over 60,000, is about 25 km to the north-west. Cuddalore town, further south of Pondicherry, is another important urban centre with a population of about 1.5 lakh. To the north of Auroville, at a distance of about 10 km, lies the Kaliveli tank, a unique environmental resource in the region. To the south is another major water body, the Ustery tank, an important source for irrigation. There are about 40 villages

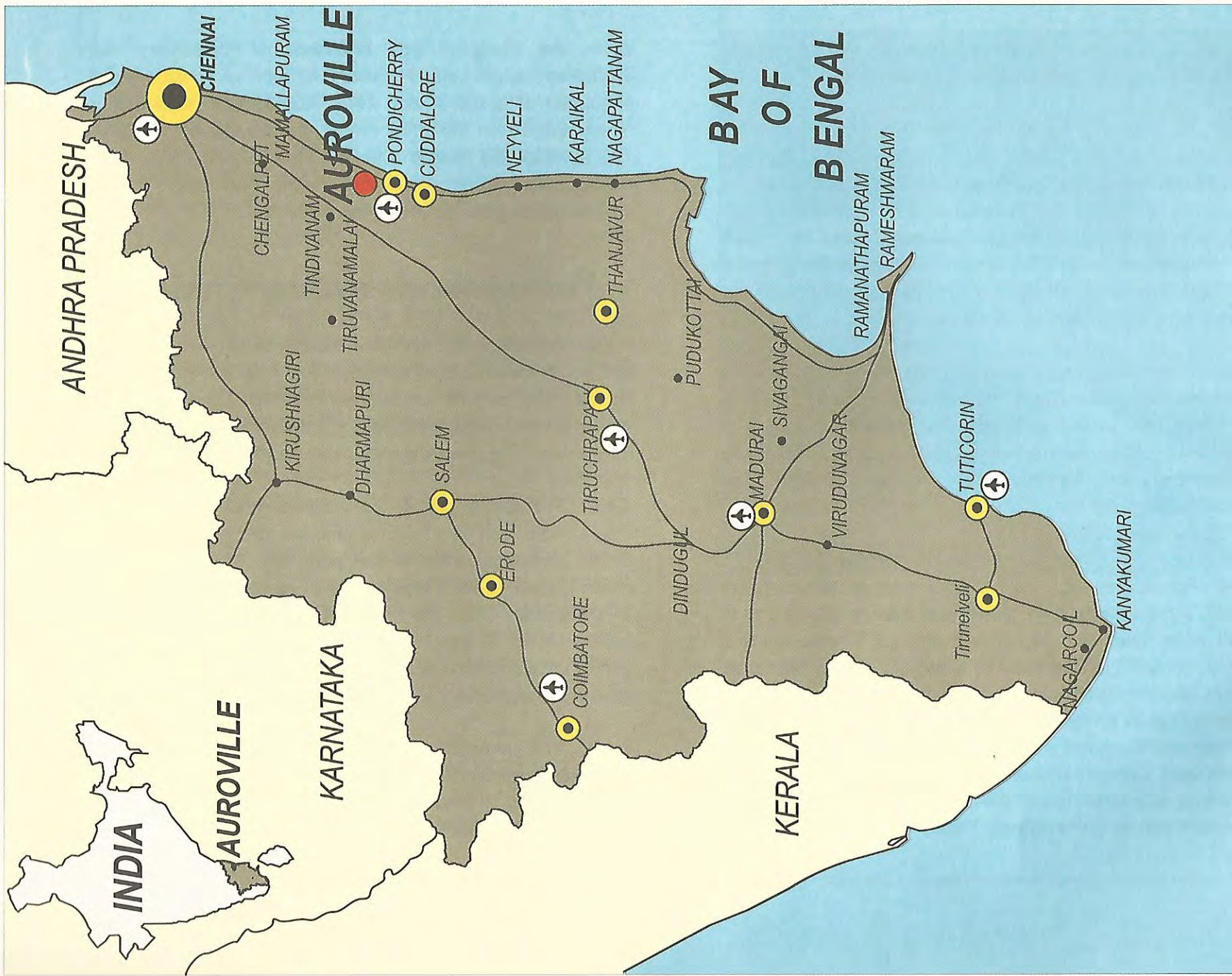
within the triangular area bounded by Pondicherry city, Tindivanam town and Marakkanam with an entirely rural population of about 3 lakh. Thus, Auroville's development is closely linked with the development of the surrounding region. The development models evolved in Auroville township, be it plantation, regeneration of land, water harvesting, building technology, etc., are benefitting the entire region.

1.4 CLIMATE AND PHYSICAL CHARACTERISTICS

1.4.1. Auroville has a tropical climate. The dry season usually lasts seven months, from January to July. May and June are the hottest months with occasional showers. The main rainy season is from October to January. The average rainfall is 1,230 mm. a year. The prevailing wind blows from the southeast.

1.4.2. The central part of the designated Auroville township area is more than 50 m above mean sea level. The site slopes down from the centre to the periphery. The uncontrolled runoff appears to have been the main cause for the erosion of adjoining land. The deeper canyons are located mainly in the east and south of the designated area. There are a few water bodies or 'eris' in and around the township, of which Irumbai eri is the largest one.

1.4.3. The geological structure of the area as indicated in **Drawing 3**, reveals that the topsoil is hard laterite on a bed of clay of varying depths. The soil is not suitable for productive agriculture with traditional methods. This was also assessed by

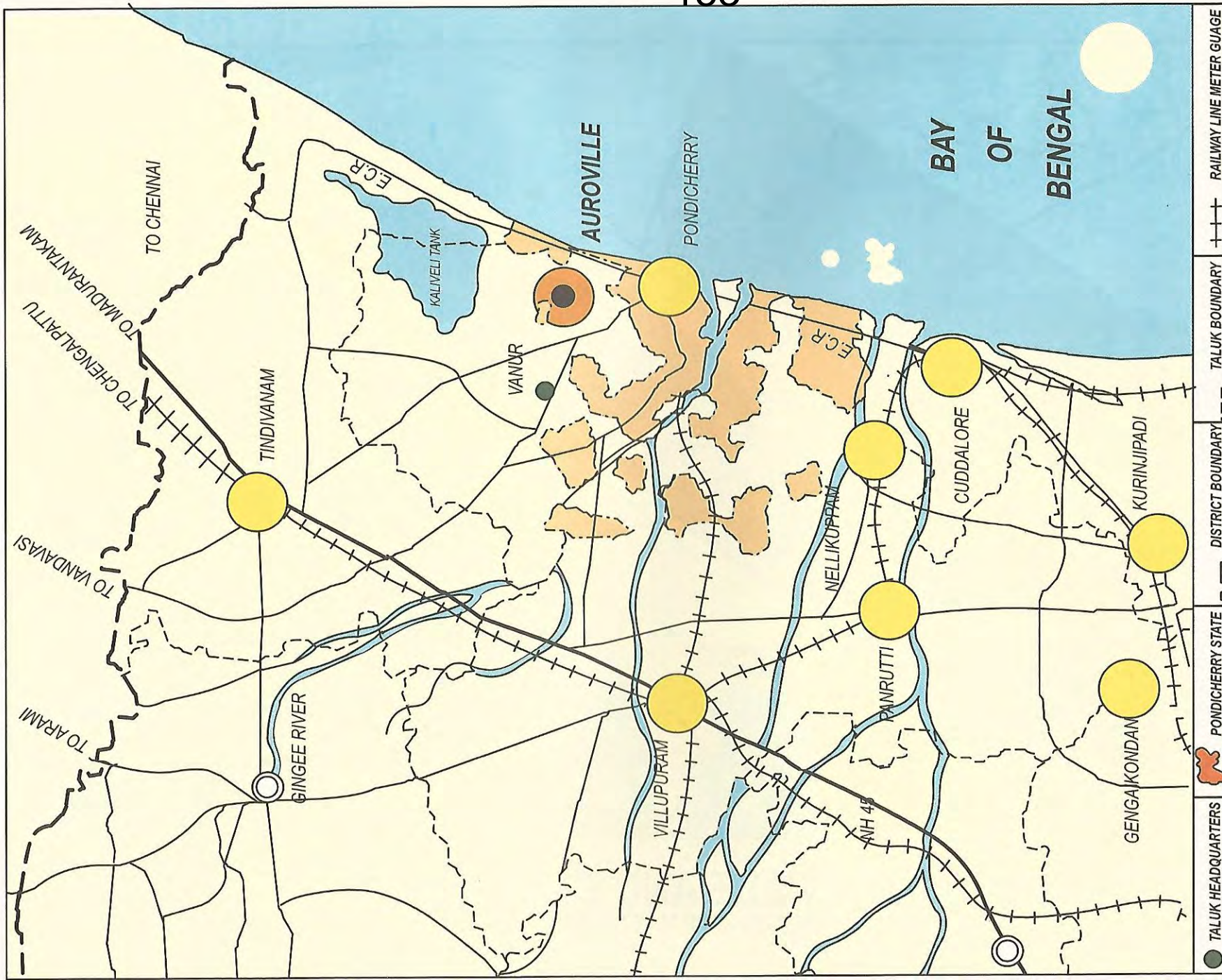


AUROVILLE IN TAMIL NADU
AUROVILLE UNIVERSAL TOWNSHIP MASTER PLAN

DRG 1



NORTH



TALUK HEADQUARTERS
 PONDICHERRY STATE
 - - - DISTRICT BOUNDARY
 - - - TALUK BOUNDARY
 + + + RAILWAY LINE METER GAUGE

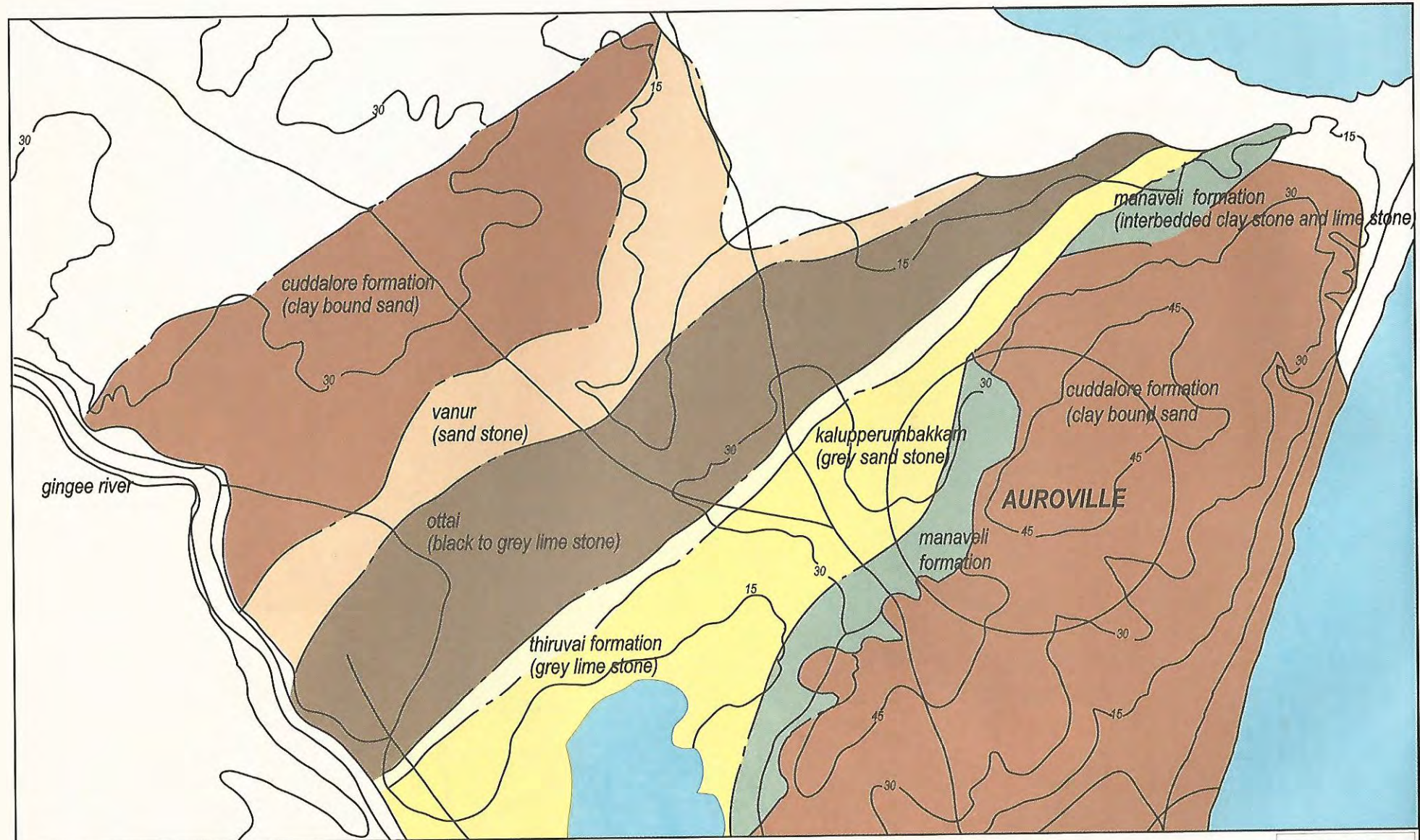
AUROVILLE IN VILLUPURAM DISTRICT

AUROVILLE UNIVERSAL TOWNSHIP MASTER PLAN

DRG 2



NORTH



GEOLOGY - AUROVILLE AND ENVIRONS

AUROVILLE UNIVERSAL TOWNSHIP MASTER PLAN

DRG 3



NORTH

the District Officer in 1976, who concluded that "the entire area is exposed to wind and water. If this is allowed to continue, then agriculture will be impossible..." The area also falls in the cyclonic belt.

1.4.4. Legend has it that the Kaluveli Siddhar, who had been offended by the chieftain and people of the area, cursed this area to become barren. After he was appeased, the Siddhar mitigated the curse and prophesised that this region would become green and prosper some time in the future with joint efforts by the people coming from all over the world.

1.4.5. The topography and climatic characteristics offered both constraints and opportunities for the development of a town like Auroville with its envisioned ideals. The constraints, in the form of gullied, windswept barren lands generally considered unsuitable for urban development, have been used as opportunities for evolving the form of the township. The slopes radiating from the centre to the periphery provided a suitable location for Matrimandir as the centre of the township and also the soul of Auroville. The geomorphology of the area also helped in conserving and optimally utilising the rainfall runoff to convert this inhospitable site into a hospitable environment for the development of a human settlement in harmony with nature.

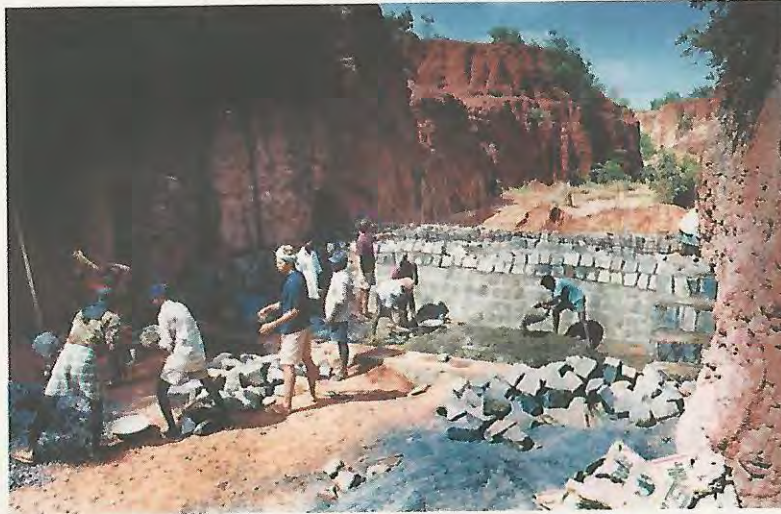
1.5 EXISTING LAND USE

1.5.1. Since the inception of the township, the land use cover

Table 1: Existing Land Use – 2000

Land Use	Extent (ha)	Percentage
A. Developed Area		
1. Residential	95	40.9
a) Village settlements	20	
b) Auroville communities	75	
2. Commercial	19	8.2
3. Manufacturing & Economic activities	10	4.3
4. Public & Semi-Public uses including peace area, gardens and area under administration / institution.	65	28.0
5. Roads / streets	30	13.0
6. Recreational (playgrounds)	13	5.6
Sub-total	232	100.0
B. Unbuilt Area		
1. Regenerated land	598	34.5
2. Agriculture		
a) Agricultural & related research	50	2.9
b) Farming	940	54.3
3. Water bodies	45	2.6
4. Canyon, waste and other lands	98	5.7
Sub-total	1731	100.0
Grand Total	1963	

has changed considerably. From a barren and marginal land in 1968, today it has become a developed and productive land, entirely through the efforts of Aurovilians. Out of 20 sq. km of the designated area of the township, about 12% is presently developed for urban uses and the rest is under agriculture, plantation and other non-urban uses. The land use pattern given in **Table 1** and shown in **Drawing 4**, illustrates that in the



Check dam building

developed area about 40% is Residential. The next important land use in the township is public and semi-public and accounts for about 28% of the developed area. Commercial, manufacturing and other economic activities constitute about 12%. About 13% is under roads and streets serving both urban and non-urban uses.

1.5.2. After Auroville came into being, the early residents with their hard work in collaboration with villagers built check dams across canyons, put up a large number of bunds to check soil erosion, and planted and reared trees in large numbers. Over two million trees were planted during the last 32 years. A good part of this work was carried out with support from Government of India projects such as Waste Land

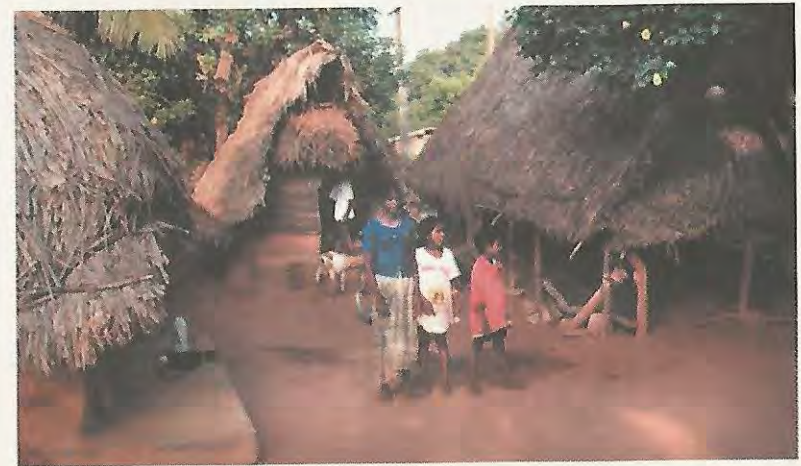
Regeneration, Watershed Management and Reforestation projects. All this contributed in regenerating the barren land into a productive and developable site for urban and green uses.

A. DEVELOPED AREA

1.5.3 The Residential Area comprises both village settlements and Auroville community settlements.

a) Village settlements: There are six village settlements within the Auroville township area, with houses mostly made of mud and thatch. Several of these have recently been upgraded or converted by the inhabitants into semi-pucca and pucca structures. As in any traditional small village settlement, other economic uses are mixed with residential usage either in

Village settlement





Grace community

the same structure or in independent small structures.

b) Auroville Communities: At present there are 95 Auroville residential communities. These communities range from 3 to 80 residential units. Apart from these, there are a few houses in smaller clusters. The residential units consist of individual dwellings as well as apartments; the latter are becoming more common. There are a few communities just outside the designated area of the township, which came up in the early years of Auroville's development, occupying about 100 ha.

1.5.4 The Commercial area in the Township includes retail services providing for food and other items of daily necessity, community eating places, guest houses, and the Visitors Information Centre with its exhibition space and sales section of products made in Auroville.

1.5.5 The Manufacturing use includes about 100 large and

small manufacturing and processing units, the products of which are marketed locally as well as internationally. The extent of land occupied by such units ranges from small plots of 50-75 sq. m. to 5 ha.

1.5.6 Public and Semi-Public uses include amenities such as schools, health facilities, services and utilities. The Peace area, forming part of the public and semi-public uses, is the most special area in Auroville. It is the centre of Auroville, which contains the Matrimandir - the soul of Auroville, the Urn and the Amphitheatre consecrated at the foundation ceremony, the central Banyan tree, the lake and the well laid-out gardens around the Matrimandir.

The Kulilapalayam - Certitude Road





Forest

1.5.7 Administrative and Institutional uses include mainly the administrative centre housed in the Indian National Pavilion (Bharat Nivas) and the Auroville Foundation offices.

1.5.8 Recreational uses at present are mainly in the form of a few playgrounds located close to residential communities, such as the Centre Field and Certitude play area.

1.5.9. Roads provide access to Auroville from the East Coast Road and the Pondicherry-Tindivanam road. However, within the township there are temporary gravel and mud roads providing access to various facilities/settlements in Auroville, some of which will be replaced once the planned roads are built.

B. UNBUILT AREA

1.5.10 Regenerated areas: From the beginning, Aurovilians have been engaged in land regeneration activities and the creation of a hospitable and sustainable habitat. The trees planted have modified the stark landscape and have begun to fulfil the prophecy of Kaluveli Siddhar mentioned earlier. The plantations not only have improved the environment but have also restored the land for productive agriculture by preventing soil erosion. Plantations include both indigenous as well as exotic species. In some of these areas, nearly extinct indigenous tree species such as those found in and around temples have been re-established.

1.5.11 Agriculture and Related uses include lands used by Aurovilians either for food production (including vegetables and

Rice field



fruits) needed by residents, or for research in improving farm practices and diversifying cropping patterns. The Auro-Orchard and Pitchandikulam medicinal herbal stations are some typical examples. In most of the cases both production and research are carried out together. Most of these are based on organic farming practices.

1.5.12 Farming includes lands generally used by the villagers for growing paddy, casuarina or other crops including cashew.

1.5.13 Water bodies :There are five 'eris' in the area of which two are large in size, namely the Irumbai eri and the Alankuppam eri. These are seasonal water bodies which help irrigate small extents of land particularly after the rainy season.

1.5.14 Canyons and other Waste Lands: The canyons are a unique feature in the landscape of Auroville and its surroundings. These deep gullies have been formed due to erosion. Some of them are 2.5 km long, 20-30 m. wide and 2-5 m. deep. The large ones are outside the designated township area in the east and south. These problem areas could be converted into opportunities for water management, land regeneration, farming and supplying drinking water needs. Besides, there are some patches of poramboke and other lands classified as waste.

1.5.15 Considering the emerging land use structure, the entire Auroville township is sensitive from environmental and ecological points of view. The areas under check dams, regenerated lands, and plantation are some of the important



Irumbai tank

Table 2: Nationalities constituting Auroville population – 1999

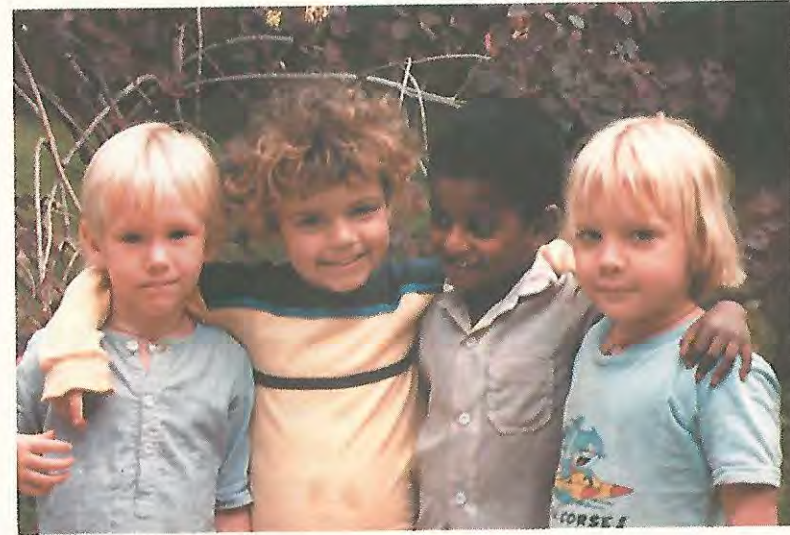
Nationality	No	Nationality	No	Nationality	No
Indian	507	Argentinean	10	French/Spanish	3
French	272	Brazilian	10	French/Swiss	3
German	230	Austrian	9	French/German	2
Italian	73	Tibetan	5	German/Indian	2
Dutch	65	Hungarian	4	Italian/Spanish	2
American	55	Sri Lankan	3	American/Irish	1
Swiss	44	Colombian	2	Argentinean/Italian	1
British	36	Estonian	2	Australian/French	1
Spanish	35	Korean	2	Australian/German	1
Belgian	26	New Zealander	2	British/Indian	1
Russian	26	Slovene	2	French/Irish	1
Australian	23	Belo Russian	1	French/Ukrainian	1
Canadian	19	Irish	1		
Ukrainian	18	Japanese	1		
Swedish	16	Moroccan	1		

Note: There is an increase of about 12% over the previous year.

environmental resources for developing the township in a sustainable manner. It points to the necessity of orderly and planned development of human habitation embedded in a regenerated natural environment.

1.6 DEMOGRAPHIC CHARACTERISTICS

1.6.1 By the very concept of the town as a Universal Township focused on spiritual and material researches and development, only those who aspire to be 'willing servitors of the Divine Consciousness', are attracted to become its citizens.



Therefore, the normal demographic process of growth does not apply to Auroville. It is in this background that the demographic characteristics of the township need to be seen.

1.6.2 The present population of Auroville consists of:

- Resident Aurovilians.
- Researchers and students, who come for short duration to learn and contribute to the efforts of development.
- Day-workers from neighbouring villages working in Auroville's economic and service activities.
- Short-term, including casual visitors coming to see the experience of Auroville's work in diverse fields.

Note: The population listed under the last two categories falls

under the category of “floating population” in the township.

1.6.3 The population of Auroville consisting of resident Aurovilians has increased from 320 in 1972 to 676 in 1980; presently it is 1519, showing a five-fold increase during the last thirty years.

1.6.4 Resident Aurovilians: There are at present 1519 Aurovilians from various nationalities, including a substantial number of Indians. **Table 2** indicates the nationalities constituting the Auroville population. The population growth till now has been rather slow. However, it may be observed that since a critical mass has already been formed and the development activities are picking up, Auroville will attract a large number of people from various countries in the years to come. In this context, it may also be mentioned that a number of international centres have been set up in different countries, and it is proposed to set up similar centres in the different states of India. These centres will disseminate information about Auroville, thereby raising awareness and attracting resource persons in larger numbers for the expansion of the present activities of Auroville.

Table 3: Day-workers

Category	Male	%	Female	%	Total	%
Manufacturing	1550	59.6	1375	57.3	2925	58.5
Services	1050	40.4	1025	42.7	2075	41.5
Total	2600	100	2400	100	5000	100

1.6.5 Students and Researchers: Nearly 100 students and researchers are in Auroville at any given point of time. As Auroville grows, the number of students and researchers will also grow. These students come from all over the world and are committed youth, who want to learn and use their knowledge in various fields in which they are interested. Their interest ranges from art and architecture to various other disciplines and their application to sustainable development. The estimated number of researchers is 1,200 annually.

1.6.6 Day-workers: Auroville provides work opportunities to about 5,000 persons residing in its neighbourhood in both manufacturing units and services. These workers have their own houses in the surrounding villages and as such return in the evening to their homes. The break up of day-workers engaged in manufacturing and services is given in **Table 3**. Nearly 48% of the day-workers in manufacturing and services are female workers, indicating a higher participation ratio of women in the workforce.

Table 4: Age composition of Aurovilians - 2000

Age group	No. of persons	%
0-14	298	19.62
15-19	99	6.52
20-24	91	5.99
25-29	131	8.62
30-39	278	18.30
40-49	308	20.28
50-59	228	15.01
60 +	86	5.66

Table 5: Auroville - Sectoral Employment

Main Sector	No of Units	Aurovillians	Day-workers
Manufacturing	35	200	2925
Services	120	520	1775
Rural & agricultural related	10	130	300

1.6.7 Casual Visitors: Matrimandir is the main attraction to visitors from outside and, on an average, 1,000 persons visit it every day. Sundays and holidays are special days when the number of visitors go up to 2,000 persons. Basic facilities such as parking of vehicles and information centres are available for their use. Apart from such visitors, students and professionals come to Auroville to learn about its activities, and attend workshops and seminars. The number of visitors for such purposes on an average varies from 50 to 75 persons at any given point of time and this is bound to increase in the future. Guesthouse facilities are available for the visitors. The number of casual visitors is estimated at 2.5 lakh/year.

1.6.8 The age and sex composition of the Resident Aurovilian population indicates that about 70% of the resident population is in the active age group. About 20% of population is comprised of school going children. Although 6% of the resident population is above 60 years of age, they are also considered to be active workers in their respective fields. The ratio of women to men is 881 to 1,000, but varies from time to time. **Table 4** indicates the age composition of Aurovillians.

1.6.9 In the absence of specific data on occupational structure

it may not be possible to indicate the detailed employment pattern in the township. However, the majority of the resident population is engaged in farming, services, professional skills and entrepreneurial activities as given in **Table 5**.

1.7 ECONOMY OF THE TOWNSHIP

1.7.1 The current economy of the Auroville township is mainly based on manufacturing units and services. Although employment in commercial and transport sectors is marginal, it is steadily growing. However, agriculture which includes allied land regeneration efforts, is an important sector of the Auroville economy.

Auromode



Table 6 : Research and Training Institutions and their Activities

Project / Institutions	Sector / Activities
1. Annadana	South Asian network, protection of genetic resources in India and South Asia
2. Aureka	Research and manufacturing of windmills and metal products.
3. Auroville Archives	Collection and storage of archival material related to Auroville
4. Auroville's Future	Integrated urban planning and city networking
5. Centre for Development for Physical Education	Physical education for youth of Auroville and surrounding villagers and village oriented programmes.
6. Centre for Scientific Research	Training centre for environmental protection through refrigerant management and renewable energy solutions.
CSR–Main	Research, development and manufacturing of biogas technology.
CSR–Water and Sanitation	Low maintenance waste water treatment systems. Root zone treatment plants.
AVBC–Ferrocement	Research and training in ferrocement technology
AVBC–Earth Construction	Research and training in earth construction and manufacturing of AURAM equipment
AVBC–Architecture	Innovative design and construction of buildings.
Cynergy	Team building, project formulation and training in bio-regional activities. Developing multimedia software packages.
7. Centre of Indian Studies and Research in Indian Culture	Library and resource centre on Indian culture
8. Hall of Culture	Indian arts and cultural activities
9. Harvest	Promotion of water harvesting, aquaculture, organic agriculture and environmental education, ground water studies and environmental monitoring.
10. Kalamitra	Cultural programme for artists, promotion of dance, exhibitions, concerts and theatre, both Indian and Western.
11. Palmyra	Reclamation of waste and degraded lands, tank rehabilitation and soil conservation, afforestation, documentation and training.
12. Pitchandikulam Bio-Resource Centre	Medicinal herbs and plants, tree nurseries.
13. Sri Aurobindo International Institute of Educational Research (SAIIR)	Research in integral education, covering philosophical, educational and psychological dimensions. As part of the research it encourages creation and publication of new learning and teaching materials.



Earth block construction

1.7.2 Currently there are more than 100 small and medium manufacturing units operating in Auroville. The products manufactured include such modern equipment as computer software, electronic and engineering products, equipment used in alternate and appropriate technologies such as windmills, solar lanterns and heaters, and biogas systems. Cottage type industries producing a wide range of products such as garments, candle and incense products, printing, food processing, etc. also exist in Auroville. The overall turnover of all these units was about Rs. 25.50 crores in 1999- 2000.

1.7.3 The service sector includes construction and architectural services, research and training in various sectors related to efficient resource management and sustainable

Table 7: Housing Characteristics

Housing Construction Material	Area of Unit (sqm)			Total
	30-70	80-150	160 and above	
Local material	111	59	31	201
Ferro-cement	122	165	69	356
Tiles	56	70	20	146
Concrete	11	27	26	64
All types	300	321	146	767

development, such as renewable energy and appropriate building materials.

1.7.4 People in the agriculture sector are engaged in food production, mainly fruits and vegetables, dairy products, and related research and training and activities like organic farming, soil conservation and water management.

1.7.5 Economic activities in Auroville are a mix of production, research and training encompassing both traditional and higher levels of learning in technological, social and ecological fields. The important research and training activities undertaken in Auroville are depicted in **Table 6**.

1.8 HOUSING

1.8.1 The present housing in Auroville consists of individual dwellings, community housing, apartments and youth hostels.

Community housing provides for individual and family living spaces with common kitchen and other collective facilities. The average household size is around 2 persons but in reality there are many single person households. At present there are 767 dwelling units of various sizes. Types of houses based on construction materials indicate that the majority of the houses have used local materials as well as innovative building materials such as ferrocement roofs and panels made locally. The housing characteristics are shown in **Table 7**.

1.8.2 Since Auroville is experimenting with appropriate construction elements, wall materials vary widely from adobe, stabilised earth blocks and rammed earth to fired bricks. Auroville has even experimented with the 'fire bricks house' technique, where the entire structure is built in earth and fired like a kiln, producing an innovatively constructed house. The architecture here reflects the practice of innovative design and alternative building materials. The experiments made in building technology in Auroville will have far-reaching implications in terms of design and materials, of reduction in energy consumption, and adoption of eco-friendly practices.

1.9 PHYSICAL AND SOCIAL INFRASTRUCTURE

1.9.1 Road Network: Auroville's road network consists of access roads, which are tarred but narrow and not well maintained and connect the East Coast Road and Tindivanam-Pondicherry road with village settlements, internal gravel roads, footpaths and cycle tracks. Most of the internal roads are of a



Waste water treatment plant

temporary nature giving access to residential communities and public facilities. The gravel roads are about 10 m. wide. The total length of roads within the designated township area is 23.7 km. The principal access roads and internal linkages indicated in the Existing Land Use Map (**Drawing 4**) show that the area is well served with a road network. The existing road pattern is comprised of one circular road around the centre of the township and another semi-circular road passing along the periphery (outer circle) of the designated area of the township. Both the inner and the outer circular roads are connected by radial roads. The surface of the internal access as well as circular road has intentionally been kept as gravel to allow percolation of rainwater for re-charging the aquifers. Conceptually these are maintained as pedestrian roads, but slow moving traffic



consisting of cycles and scooters is slowly and steadily increasing. With the increase of tourists and visitors to the Matrimandir area, the motorised traffic consisting of cars and buses also increased, particularly on holidays and weekends. Apart from missing links in the outer circular road in the eastern part of the township, the road network in the township is devoid of street furniture, signage and indicators. Geometrics of the major linkages to the township both from the East Coast road and the Tindivanam-Pondicherry road, as well as of the internal roads, access and approaches need to be improved.

1.9.2 Water Supply: The entire water supply both for drinking and irrigation is dependent on underground sources. A number of deep wells have been commissioned over the last 30 years and today there are over 130 wells, of which 60 wells give a significant output. They can together provide an average water supply of 3800 cu.m. per day, amounting to 1.4 million cu.m. annually. Auroville is however located in a district where the ground water situation can be described as 'critical' since nearly 90% of the recharge potential is utilised. It therefore becomes important not only to increase the recharge rate but also conserve and recycle water. Taking note of this situation, Auroville is engaged in extensive water management research and application.

1.9.3 The drinking water usage of about 4.5 million litres/day for domestic, industrial and gardening purposes is considered excessive and measures are being taken to bring it down to reasonable urban standards. The distribution system consists of decentralised pumping units and storage reservoirs, numbering

about 60. Of the latter, one large overhead reservoir has a capacity of 1.5 lakh litres and 8 medium-size low-level tanks range in capacity from 10,000 litres to 40,000 litres. The present pumping capacity is adequate to meet the requirements of the future population. However, proper water conservation is essential to economise on energy and water consumption. At present the rainwater runoff from roads and paved areas is diverted to the canyons, where a system of check dams helps in storage and recharge of ground water.

1.9.4 Sewerage and Sanitation: All residential units have their own system for sewage disposal. There are about 20 community-level treatment facilities (for residential as well as industrial and commercial units) consisting of septic tanks, Imhoff tanks, baffle reactors, and root zone and lagooning systems. The latter, numbering 22, are of experimental nature, and a study has been taken up to test their efficacy in delivering waste water that will not pollute the ground water.

1.9.5 Solid waste disposal is managed by the Eco Service, which was started in 1995. It is estimated that about 3500 kg of wastes are generated per week. About 2000 kg. of this quantity is organic and generally composted at the site itself. About 1000 kg. is recycled and the balance of 500 kg is incinerated in the Health Centre at 800 °C. The non-recyclable wastes of 400 to 500 kg, like rubber items, thermocole, fibreglass and PET, and storage batteries are stored in a temporary storage facility until an acceptable disposal solution is found. This waste disposal management has been made possible by the introduction of segregation of wastes at the source.

1.9.6 Power: Auroville consumes about 1.75 million kilowatts of power/year from two TNEB feeder stations, one in Kalapet and the other one at Thiruchitrabalam. The total connected load is 3.17 megawatts, of which 1.5 megawatts are domestic and the rest is for industrial and commercial purposes.

1.9.7 About 150 houses use solar PV electricity and heaters for their energy requirements. In addition, there are about 140 solar water-pumping systems and 30 wind-driven pumps. The power distribution of around 600 consumer connections is carried through a system of 28 distribution transformers and 30 km of underground cables.

1.9.8 Telephones and Communication: The Township is served by a telephone exchange with a capacity of 1000 lines, which is fully utilised. There is also a small post office located in Bharat Nivas which exclusively serves Auroville. Auronet, Auroville's email and electronic bulletin board network, both within Auroville and with the outside world, has currently about 750 subscribers. The township has its own internal messenger service and the weekly Auroville News provides information about the happenings in Auroville to all the residents.

1.9.9 Auroville publishes for internal as well as external circulation two regular newsletters in English, and one in Tamil. English-language newsletters are the monthly 'Auroville Today' and the quarterly 'Auroville Outreach', and 'Kaliveli Nilam' is in Tamil. Auroville is equipped to handle its information and outreach

through well-established printing and multimedia resource units.

1.9.10 Cremation and Burial Ground: At present, there is one burial ground within Auroville, which is used by villagers. There is no regular burial or cremation facility for the Aurovilians as such, but a site for this purpose has been chosen near Adventure community in the southern part of the Green Belt.

1.9.11 Education: Auroville educational research endeavours to nurture the child's potential to its highest possible level, and is based on a child-centred approach. At present, there are two crèches, one kindergarten, two primary schools (Transition and Deepanam), and three high schools (Last School, Centre for Further Learning and After School) for children residing in Auroville. All these educational facilities are located within walking distances and are well-dispersed in the

New Creation School



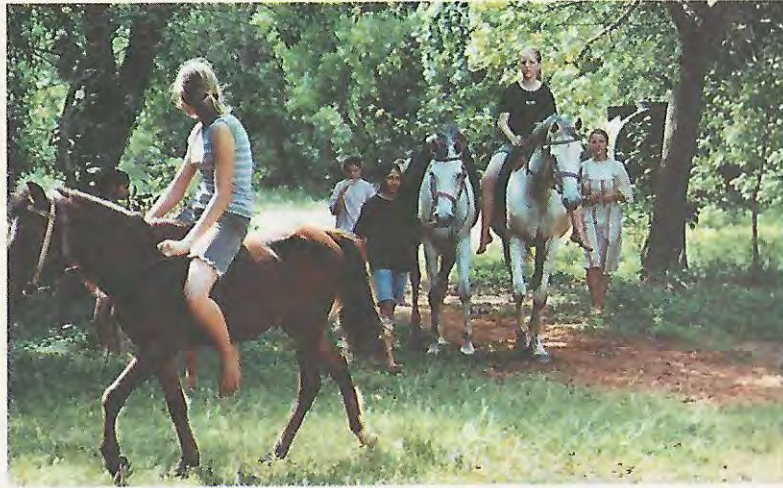
township. New high school facilities are presently under construction. There are also four schools (New Creation, Isaiambalam, Arul Vazhi and Ilaignarkal) specifically serving the surrounding villages.

1.9.12 About 700 children from 13 surrounding villages and from Auroville are studying in these institutions. The schools use innovative learning and teaching methods and also provide playground and sports facilities appropriate to the age level. The Sri Aurobindo International Institute for Educational Research (SAIIER), an organisation established in 1984, co-ordinates the multi-faceted educational and cultural activities in Auroville.

1.9.13 Health: The Auroville Health Centre, recognised as a mini health centre by the Tamil Nadu State Government, is equipped with basic medical facilities. It serves the Auroville community as well as about 200 patients daily from the villages, and has six sub-centres, located in Edayanchavadi, Putthurai, Kottakarai, Matthur, Rayapudupakkam and Morattandi.

1.9.14 For emergencies and complicated cases, patients are referred to the health facilities in Pondicherry, which is just 6 km away. Auroville also experiments with and promotes various alternative healing methods and natural therapies.

1.9.15 Tourist Infrastructure: The infrastructure within Auroville for visitors and tourists consists of information centres, guest houses, and the Visitors Centre which has an information service, a boutique and a restaurant. The guest houses can accommodate



Pony farm activities for children

altogether about 400 persons in a simple, clean and green environment at a moderate price. Dormitory accommodation for youth and young researchers is also provided. Parking facilities can provide space for 20 buses at any time.

1.9.16 Recreation: Auroville provides for children and youth of Auroville and the residents of the surrounding villages a broad array of sports and physical education activities, and aims to maximize these opportunities in the region. The township has presently four play fields for various outdoor sports, such as tennis, football, volleyball and badminton, and a gymnasium and indoor sports facilities. It organises on a regular basis team games and athletic meets, and competitions in basketball, volleyball, football, table tennis and cricket. Many of the participants for these competitions come from the surrounding

villages. Although the Auroville township area is away from the coast line, it has developed beach facilities at 'Repos', near Chinnamudaliarchavadi village.

1.9.17 Socio-Cultural Facilities: Auroville has become a hive for socio-cultural activities serving both Auroville residents and their neighbours. The most important facilities include the Sri Aurobindo Auditorium at Bharat Nivas with a sitting capacity of 840 persons. Workshops and recitals of both traditional and modern dance, drama and music are regularly held. Several groups are active in providing cultural events based on community and environmental awareness programmes.

1.9.18 Spiritual Centre: The Matrimandir, the spiritual as well

Matrimandir



as the physical centre of Auroville, is in the Mother's words, "the symbol of the Divine's answer to man's aspiration for perfection, union with the Divine manifesting in a progressive human unity". The Matrimandir is a place of silence and concentration.

1.9.19 The major areas of work on the structure are under completion and attention is being given to the development of the surrounding gardens. The Matrimandir together with its gardens extends over an area of 28 ha. The growth of the Matrimandir and its movement towards a perfect completeness reflects and signals the growth and increasing perfection of Auroville as a whole.



1.9.20 Village Outreach: Auroville's development is inextricably intertwined with the surrounding villages, which were classified in 1984 as part of a "most backward area in need of development" by the Tamil Nadu Government. There are 13 villages in the immediate area of Auroville, comprising about 40,000 people, and there are altogether 40 villages in the bioregional area. About 350 people from the surrounding villages have joined Auroville. Almost 5,000 local people are employed by Auroville, from sweepers to engineers; most of them have been trained in Auroville to improve their qualifications and skills. Auroville provides for the young of the rural area a real and viable alternative to the migration to the cities and urban centres, which is so often the only option for those seeking self-improvement and employment.

- More than 500 children from neighbouring villages attend Auroville schools; another 900 attend Auroville classes in their village schools.
- More than 20,000 people from the neighbouring villages receive health care from Auroville every year.

1.9.21 Village development has been a major activity of Auroville since its inception. Over the past 13 years, the Auroville village development groups (AVAG, Health Centre, Pitchandikulam, Harvest, Palmyra) have been engaged in a development programme for the neighboring villagers. With funding from a number of national and international organizations, this program aims at:

- Improving the health situation through education,

- preventive care and treatment;
- Empowering women;
- Encouraging in each village the growth of community spirit by ensuring people's participation in developmental programs;
- Raising the standard of living of the local population through vocational training and self-employment;
- Involving the villagers in a co-operative effort of wasteland reclamation, watershed management and environmental regeneration;
- Providing education for the village children.

1.9.22 At present, there are five major educational programs for village children such as New Creation (with boarding facilities), Ilaingarkal, Isai Ambalam, Life Education Center and Arul Vazhi, a program that sends animators to the village schools for regular classes and special activities.

1.10 ADMINISTRATIVE SET-UP

1.10.1 The Auroville Foundation Act, 1988, enacted by the Government of India, provides for the establishment of the Auroville Foundation with a view to making long-term arrangements for the better management and further development of Auroville in accordance with its original Charter and for matters connected therewith or incidental thereto. The Auroville Foundation comprises the following three authorities:



Meeting with the Chairman of the Governing Board

- The Governing Board
- The Residents Assembly
- The International Advisory Council

1.10.2 The Foundation's functions also include monitoring and review of Auroville activities, preparation of a Master Plan for Auroville in consultation with the Residents Assembly, ensuring the development of Auroville as so planned and co-ordinating the raising of funds for Auroville as well as the disbursement thereof for achieving the ideals of Auroville.

1.10.3 The Governing Board, consisting of eminent and senior persons, including nominees of the Central Government, have the overall responsibility for the proper



Community meeting at Sawchu

management and development of Auroville. The Chairman and Secretary of the Governing Board are appointed by the Government of India. The Governing Board is responsible for promoting the ideals of Auroville and for co-ordinating the activities and services of Auroville in consultation with the Residents Assembly for the purpose of cohesion and integration of Auroville. It also reviews the basic policies and programmes of Auroville and gives necessary directions for the future development of Auroville. It also gives its consent to the programme of Auroville drawn up by the Residents Assembly.

I.10.4 The Residents Assembly, comprising all the residents of Auroville over the age of 18, organizes the various activities of Auroville and decides upon the terms of their membership. The Residents Assembly selects a Working Committee from its

own members to represent itself with the Governing Board and the Secretary to the Foundation. The Residents Assembly is also required to formulate the Master Plan of Auroville for the approval of the Governing Board.

I.10.5 The International Advisory Council is a body with eminent persons both from India and abroad who act as advisors to the Governing Board and the Residents' Assembly. The present membership of the Governing Board and the International Advisory Council may be seen in Appendix I.

I.10.6 The Role of the Community: As far as the preparation of the Master Plan is concerned, the Residents' Assembly has a very important role to play. According to section 17 (e) of the Auroville Foundation Act, the Governing Board is, in consultation with the Residents Assembly, responsible for the formulation and implementation of the Master Plan.

I.10.7 There are two important councils, namely the Executive Council and the Development Council. A number of groups have been constituted to manage specific aspects of Auroville's complex organisation, such as Entry Group, Economy Group, Funds and Assets Management Committee, Land and Estate Management, Project Co-ordination Group, etc. Appendix II indicates the responsibilities of the different working groups in Auroville. The Development Council oversees the planning and monitoring aspects of Auroville's physical development, while the Project Co-ordination Group assists working groups and project agencies in the formulation and funding of projects.

1.10.8 There is thus a considerable amount of autonomy in the preparation and implementation of projects which has been very helpful in motivating Aurovilians to participate in all developmental activities of the township. It has yet to achieve full co-ordination in order to meet the central objective of Auroville's development as envisioned by the Mother. However, in order to plan and implement the Master Plan (Perspective: 2025) effectively, a separate outfit as part of the Foundation set-up would be necessary.

1.10.9 Service Agencies: Auroville has at present a number of service units which look after water supply, power and communication, roads and waste management. They are Auroville Water Service, Auroville Electrical Service, Auroville Telephone Service, Auroville Road Service and Auroville Eco-Service. These services are maintained through service charges from users and contributions from Auroville's Central Maintenance Fund.

1.10.10 There is one Auroville centralised purchasing and distribution service known as "Pour Tous" (For All). It operates like a departmental store for daily necessities. There is no cash transactions, the entire system works on credit through maintenance of individual accounts. Pour Tous building/facilities presently located just on the periphery of the township is proposed to be relocated in the Crown area and it will have a number of outlets in the township.

1.10.11 With regard to the law and order situation, although there is no specific police station in the township, police liaison services are available to meet any emergency situation. In this

context, it would be pertinent to mention that the Mother had a vision for Auroville: "No army, no police, they are replaced by a battalion of guards consisting of athletes and gymnasts". Accordingly, an Auroville Guard consisting of young volunteers are available to provide this service.

1.11 FUNDING OF TOWNSHIP ACTIVITIES

1.11.1 The activities of Auroville are financed through contributions from residents, grants and donations from India and abroad, income generated by Auroville units and Government of India grants. These activities are co-ordinated through various working groups.

Financial Service



1.11.2 Auroville Fund is the official receiving, disbursing and accounting channel through which Indian and foreign donations for various projects reach units and projects in Auroville. The expenditure on account of the Auroville Foundation Secretariat is met by the Department of Education, Ministry of Human Resources Development, Government of India, by way of annual grants. Income and expenditure statement for the year 1998-1999 given in Appendix III gives an idea of general sources of revenue and major items of expenditure.

1.11.3 In the past ten years, Auroville generated Rs. 150 crores for its activities of which Rs. 100 crores were generated internally. The balance of Rs. 50 crores, was raised through donations from abroad (46%), donations from agencies and individuals within India (38%) and grants from the Government of India (16%).

1.11.4 The Financial Service was started in the seventies as an attempt to do away with cash transactions in Auroville by keeping accounts of the cash holdings of Aurovilians. Since then, nearly all transactions between units and Aurovilians have been done through transfers using these accounts.

1.11.5 The Central Fund was started in 1989 as a system to provide collective support to Auroville's services and other responsibilities and to provide maintenance allowances to the Aurovilians who do not have private resources. The Central Fund is financed through the income generated from commercial units, which contribute varying percentages of their profits; contributions from guests; projects; interest on

deposits with the Auroville Fund by individuals; and donations by individual Aurovilians. Apart from this, each unit pays Rs 1,000 a month for each Aurovillian working for that unit. Since July 1995, the Central Fund has successfully increased its income on deposits, by asking Aurovilians to transfer the amounts they had in low interest-generating bank accounts to their Financial Service accounts, and to forgo interest on these accounts. This has resulted at present in a total capital of over 4 crores. The interest of this capital is now mainly used to finance the monthly budgets of the Central Fund.

1.11.6 The Central Fund distributes its income of approx. Rs. 35 lakh per month to more than 40 activities and services. The Central Fund accounts are published each month in the Auroville News. The Economy Group is responsible for administering this Fund. Over the past two years there has been a marked shift in emphasis from the services to the individual. The Central Fund budget specifically for the maintenance of Aurovilians receives a great deal of attention. As of today, the allocations for the basic subsistence of about 370 Aurovilians and their families is under intense observation to secure a strong base for the well being of each one. In August 1999, the Auroville Maintenance Fund / Financial Service introduced a new software which provides for the possibility for each Aurovillian to have both a cash and a kind account. This is meant to be a tool to help Auroville to move into an internal economy where there is no exchange of money. It is hoped that the needs of Aurovilians who are now covered either by themselves, by projects or by the commercial units for

whom they work, will progressively be covered in a different way through the combined resources of the community.

1.12 LAND OWNERSHIP

1.12.1 The designated area of Auroville covers 19.63 sq. km i.e. 1963 ha. For proper and orderly development of Auroville as per the Master Plan, it would be necessary to have full control by the Auroville Foundation over the activities within the above mentioned area. For this purpose, Auroville has been in process of securing the lands required for development from the beginning. All the lands so far secured have been acquired by negotiated purchase from the owners. As on 1st August 2000, Auroville owns 778 ha. of land in the designated township area, as indicated in **table 8**:

	Government lands	Owned by Auroville	Private ownership	Total
City Area	26	383	82	491
Green Belt	56	395	865	1316
TOTAL	82	778	947	1807*

*The balance of 156 ha. is covered under existing village settlements, water bodies and roads.

1.12.2 Distribution of land ownership indicated in **Drawing 5** clearly shows that about 83% of the land within the City Area is under the control of the Auroville Foundation while the remaining 17% needs to be acquired. In respect of the Green

Belt, however, 70% of the land is under private ownership and needs to be secured for planned and orderly development.

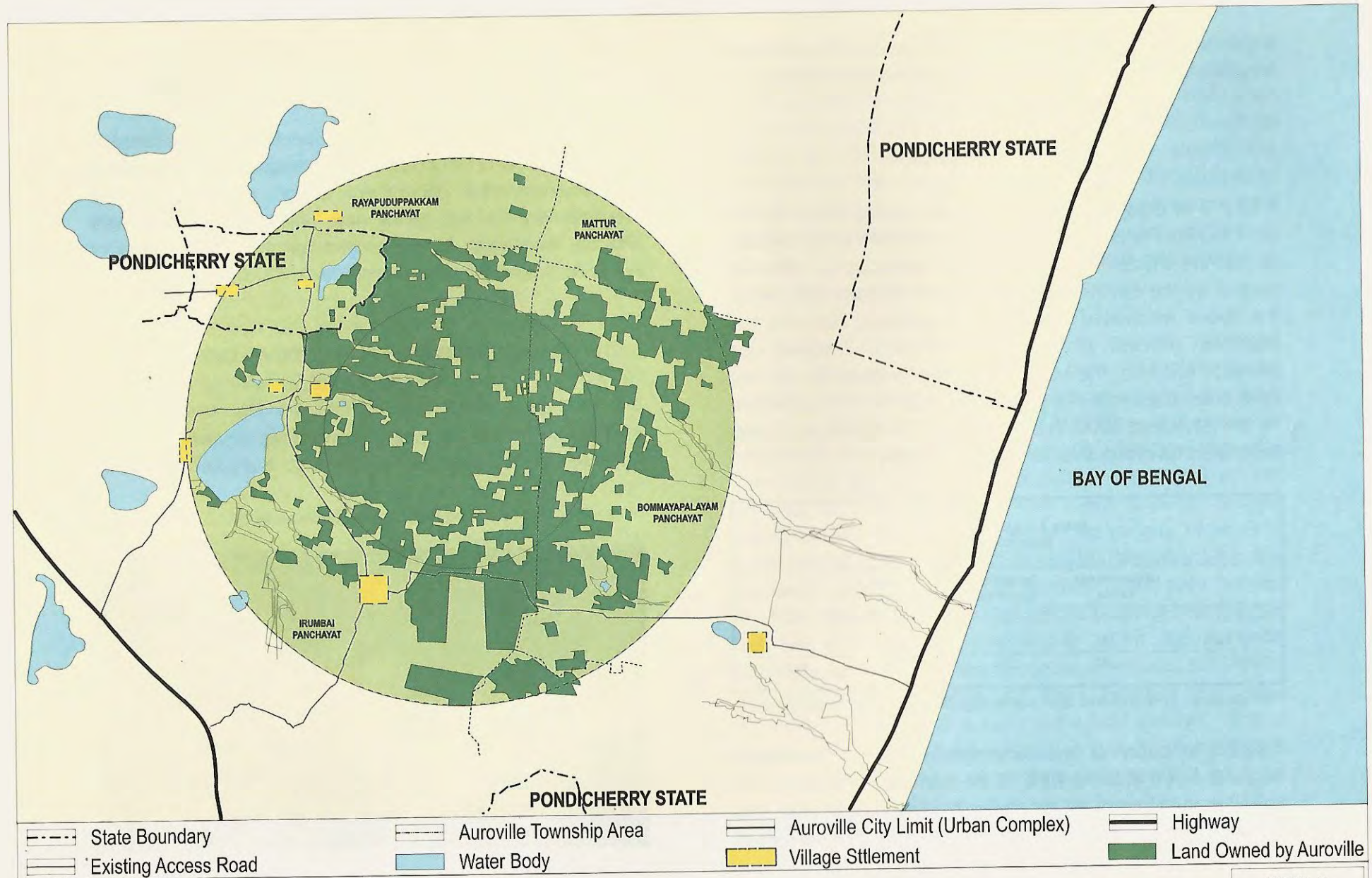
1.12.3 The present policy for the development of the land has been clearly laid down in terms of open spaces to be provided and environmental parameters to be adhered to. The Development Council, taking note of the above parameters and the essentiality of the project for the development of Auroville, scrutinises all such projects.

1.13 IMPERATIVES FOR THE DEVELOPMENT OF AUROVILLE

1.13.1 One of the principal requirements for the growth of Auroville is the provision of housing. Because of lack of

Land around the Matrimandir





AUROVILLE: LAND OWNERSHIP - 2000

AUROVILLE UNIVERSAL TOWNSHIP MASTER PLAN

DRG 5





Building a new house

adequate housing it has not been possible to encourage new residents to settle. The provision of adequate housing is tied up with funds for development. Another important factor is that there are still significant patches of land within the city area, which are not secured by Auroville and are essentially needed to plan and implement cost-effective infrastructure facilities, such as roads, sewerage, water supply, power and communication.

1.13.2 The Green Belt surrounding the City Area, covering about 1,440 ha., is an integral part of Auroville's development and its proper use is crucial to fully achieve the objectives of

Auroville. Many of the material researches that are necessary to promote sustainable development both within the designated area and outside necessarily have to be carried out in the Green Belt, which should be secured against speculative urban development. The Green Belt has to be maintained predominantly as an area of agricultural and forest type of uses, so that it is not only integrated with the existing village settlements, but also with environmental activities that promote water harvesting, aquifer recharge, bio-diversity conservation and recreation.

1.13.3 It is therefore imperative that the Green Belt should be secured against all types of development not in line with the goals of Auroville's development. Auroville can therefore only be realised to its full potential through intense resource mobilisation and the proper implementation of the Master Plan (Perspective: 2025).

2. **Part Two**

Development Proposals

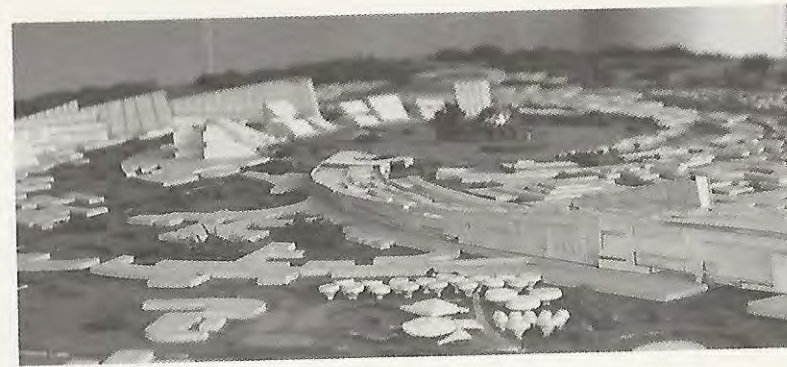


2.1 AUROVILLE ASSIGNED POPULATION

2.1.1 The Auroville township has been conceived for an ultimate population of 50,000 people, who will come and stay here to accomplish the special task of carrying out spiritual as well as material researches, which will have wider applications not only in India but the world over. Today Auroville has such a work force of over 1,000 persons, who have assiduously built up its base and infrastructure, which may now attract more such dedicated people. A systematic further development of infrastructure will attract a working population to Auroville from all over the world, and the number of people living in Auroville is projected to be in the range of 15,000 by the year 2010. It is estimated that the target of 50,000 Aurovilians will be reached around 2025.

2.1.2 The estimated numbers of persons in different age groups and the size of households is given in **table 9**:

Age group	Year 2010			Year 2025
	Total	Men	Women	Total
0-19	4000	2000	2000	17000
20-59	10000	6000	4000	28000
60+	1000	4000	600	5000
All age groups	15000	8400	6600	50000



2.1.3 Working Population: The working population will be in the age group from 20 to 59, i.e. 10,000 persons in 2010. These persons will be directly engaged in the production of goods and services for Auroville or in applied research activities that will have wide-spread benefit. Estimated break up of workers in various sectors is given in **table 10**:

Sector	Estimated no.	%
Primary Farming, forest development, animal husbandry, wildlife, fisheries and such activities.	1000	10
Secondary Manufacturing including medium- sized clean industries, cottage & household industries & artisans both for local consumption and export.	6000	60
Tertiary Trade, transport, construction and services	3000	30
Total	10000	100

2.2 THE NEED FOR A MASTER PLAN

2.2.1 The activities in Auroville have so far been carried out on the basis of a broad planning framework and the concept plan prepared by Mr. Roger Anger, Chief Architect and Planner of the city, which received the blessings of the Mother. However, the need for a Master Plan arose due to the following factors:

The requirement of the Auroville Foundation Act

The Auroville Foundation Act, which was enacted by the Parliament in 1988, has a provision to prepare a Master Plan for Auroville to guide its future growth. The relevant sections of the Auroville Foundation Act are reproduced below:

17. The powers and functions of the Governing Board shall be:
 - (e) to prepare a master plan of Auroville in consultation with the Residents' Assembly and to ensure development of Auroville as so planned;
19. (1) The Residents' Assembly shall perform such functions as are required by this Act and shall advise the Governing Board in respect of all activities relating to the residents of Auroville.
 - (2) In particular, and without prejudice to the foregoing powers, the Residents' Assembly may-
 - (c) formulate the master plan of Auroville and make necessary recommendations for the recognition of organisations engaged in activities relatable to Auroville for the approval of the Governing Board;

2.2.2 Time is now ripe to systematically develop the township, since Auroville has secured about 850 ha. of land out of about 2000 ha. of designated area. Auroville has been progressively securing the lands required for its development. More than 70 % of the land required for building development as well as for infrastructure in the City Area has already been secured. Systematic development and expansion of activities and population are therefore now possible. The Master Plan (Perspective: 2025) will facilitate such development.

2.2.3 To protect all the lands secured for the township and to prevent non-conforming developments, it would be necessary to have a blueprint for its future development. Auroville has yet to secure over 70 % of the land coming under the green belt area. Auroville's greening activities attract speculative elements which threaten the harmonious use of land. As such it is necessary to acquire all the remaining lands. In order to properly plan the land uses of both Auroville-owned as well as privately owned lands, drawing up a Master Plan has become essential and urgent.

2.3 GOALS AND OBJECTIVES OF THE MASTER PLAN (PERSPECTIVE: 2025)

2.3.1 The broad objective of the Master Plan (Perspective: 2025), as indicated in the Auroville Foundation Act, is to ensure development of Auroville in a planned manner. In order to meet the requirements of the Act and to realise the vision of

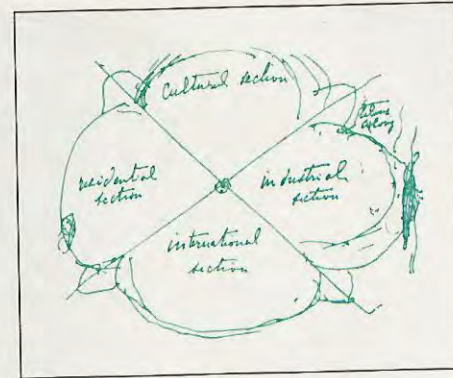
the township, the specific objectives of the Master Plan (Perspective: 2025) are:

- Laying down broad policies and directions for growth in the principal zones.
- Determining the hierarchy of roads and access ways.
- Establishing the zoning of land use on all lands falling within a 20 sq. km. area of the Township.
- Determining the standards for common facilities for education, health & social needs of the resident population.
- Identifying the social and physical infrastructure requirements of the township.
- Identifying the need for conservation of historic, ecologically sensitive and aesthetically important areas.
- Developing a mechanism for sustainable developments that harmonise both the needs of the environment and of development, as well as guidelines for such developments.
- Identifying the requirement of investments.
- Suggesting policies for integrating the neighbouring villages in the Master Plan so they may take advantage of and benefit from their proximity to Auroville for their economic betterment.

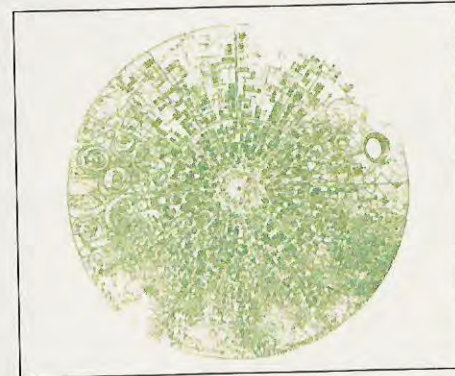
2.4 CONCEPT AND APPROACH

2.4.1 The Mother in her 1965 sketch of Auroville laid down the basic concept for the town. This sketch delineated all the

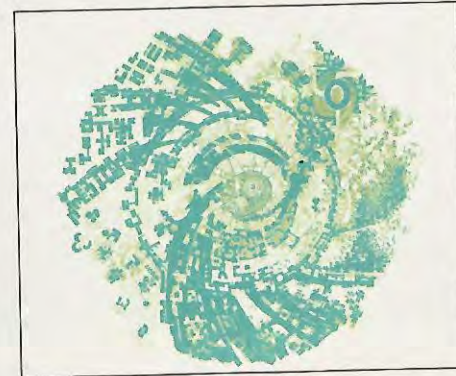
The
Mother's
sketch
1965

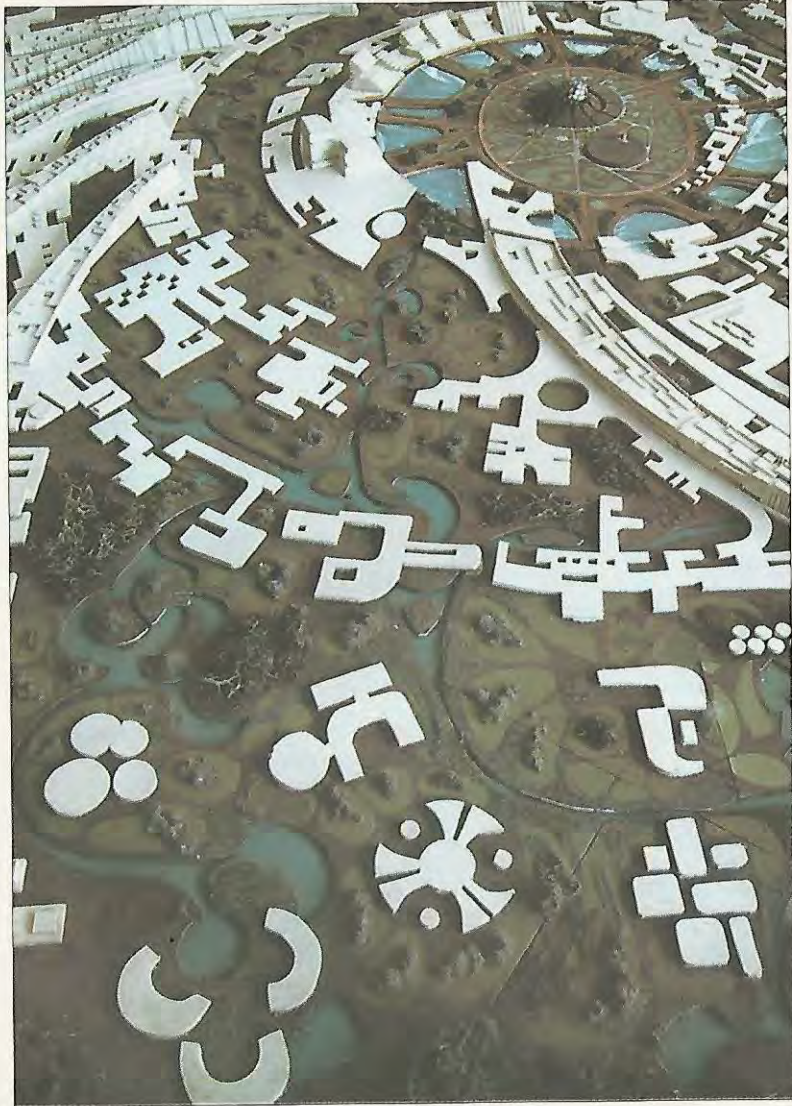


Nebula
1966



Galaxy
1968





Model of the Auroville galaxy

important areas of activity that will fulfil the vision of making it a Universal Township. This concept is as practical as it is visionary. The way in which this concept lends itself to international, national and local thinking is extraordinary. It is as modern today as it was innovative when it was expounded some thirty years ago. (Refer sketches) The concept envisions close interaction between Auroville and its surroundings to create a holistic model of development in which urban and rural settlements will complement each other and are not seen as separate. This concept is now being widely recommended to move towards balanced sustainable development.

2.4.2 The activities of the Cultural Zone represent unending education; the International Zone shows acceptance of Auroville's universality; the Industrial Zone emphasises the importance of a strong economic base; the Residential Zone gives the realisation of human oneness; and the Green Belt manifests environmental, economic, spiritual as well as material sustainability. The Green Belt activities help to meet the internal requirements of the town as well as the external requirements of the region. All these activities emanate from the central theme of Auroville: to live and work for an actual human unity the underlying message of all religions and philosophies. The Divine Presence is signified in the Peace Area by the Matrimandir, the timeless Banyan Tree and the Amphitheatre containing the soils from all parts of India as well as from all over the world.

2.4.3 Auroville, from its very inception, has embarked upon several innovations assisting human development. The Master Plan of Auroville would break new grounds in settlement

planning which can help other cities in India and other countries experiencing high urbanisation trends. It would demonstrate how 'urban' and 'rural' areas can complementarily develop in an integral and holistic way for their mutual benefit and well-being. Till recently, urban growth was considered undesirable and all policies emphasized preventing migration from rural areas. However, these policies have not succeeded and urban areas are growing rapidly and becoming more and more degraded. Presently, both national and international opinions are in favour of urbanisation, as they have become engines of development, and emphasise policies that promote urbanisation. Taken too far, these policies may also become untenable, because of the heavy toll urban areas impose on limited natural resources and their unbridled growth is liable to disrupt the food security of the entire nation. This is why planners today are talking of establishing strong rural-urban linkages.

2.4.4. Talking about planning for agriculture and rural development, the Deputy Chairman of the Union Planning Commission said: "Our population has just crossed the one billion mark, and experts have projected that we would be overtaking China by 2035 as the world's most populous country. To feed this growing population, an additional 5-6 million tonnes of foodgrains will need to be produced annually. In addition, we have to recognise that balanced nutrition, which is essential for the health of our people, demands the consumption of a wide array of food stuffs. These too must be provided without compromising on the provision of the basic calorie requirements. All this will have

to be done in a context which is less favourable than it used to be. To begin with, we need to recognise that the scope for expansion of the area available for cultivation is limited. In fact there is a possibility that cultivable area may shrink somewhat. Environmental considerations, which are just as important for the well-being of our people, demand that the area under forest cover be increased from the dangerously low levels that it has reached. Demands of urbanisation and industry too will eat into our cultivable land, though we should keep this to the minimum. These are imperatives that we cannot ignore."*

2.4.5 Auroville's development approach, while taking cognisance of the above philosophy, goes much further. The approach of the Master Plan is to establish that economic and human intellectual resources, which normally gravitate to urban areas, can be effectively used to plan development more evenly and to create an equitable and economically sound society. However, it is common knowledge that expanding urban areas encroach not only on valuable agricultural land but surround village settlements in such a way that they become islands of poverty and scarce infrastructure in a neighbourhood which is well served with better quality of infrastructure.

2.4.6 It is Auroville's concept, therefore, to build a City that will economise on land needs by introducing development approaches with an optimum mix of densities but not sacrificing the appealing urban forms or required amenities. The surrounding Green Belt will be a fertile zone for applied

research in the sectors of food production, forestry, soil conservation, water management, waste management, village development and other areas essential for sustainable development. The resulting innovative methods can be applied/extended in both rural and urban areas everywhere, particularly in India where the urban-rural divide is continually increasing.

* "Planning for Agriculture: Challenges and Opportunities",
K.C. Pant, Yojana, Vol 44, no 9, Sept. 2000

2.5 PROPOSED LAND USE PLAN

2.5.1 Keeping in view the basic ideals of the township and the innovative approaches being developed in Auroville, the land-use structure is based on the following premise:

- The built-up area, consisting of buildings and developments for residential, cultural, manufacturing, commercial and utility uses, international pavilions and open spaces, would evolve around the Matrimandir with its gardens in the centre of the township.
- The largely unbuilt part consisting of agricultural uses, regenerated forests, tanks, water bodies, channels and a number of green activities linked to the promotion of sustainable development, would encircle the built-up area and also act as interface between the City and its bio-region.



Vikas community, in the residential zone

2.5.2 The vision behind Auroville's planning and development right from its conception to the present day is that there will be an intense and close interrelationship between the City Area and the outside rural area, including the Green Belt, which will be of a synergical nature. Each would complement the other, and support the activities in the 'urban' and 'rural' sectors, thus reducing the urban and rural divide that has crept into urban planning so far, and encouraging a rural - urban continuum.

2.5.3 Land Use in the City Area: In view of the concept discussed earlier, the City Area is proposed to have the Peace Area with the Matrimandir, the Banyan Tree, the Lake, the Amphitheatre and the Gardens in the centre and the following use zones around it:

- Residential Zone
- International Zone
- Industrial Zone
- Cultural Zone

2.5.4 There is another special use zone, which traverses all the four zones in a concentric fashion with a width of about 75 meters, consisting of a circular road with buildings facing it. This is termed as the 'Crown Area'. This Crown area will provide most of the service facilities required to support the activities in the four zones mentioned above. The developments in the Crown area will naturally be somewhat different, depending upon its proximity or interface with each zone. For the

Peace Area



purposes of zoning regulations, the crown area is considered as a separate zone under each of the four zones.

2.5.5 The basic principles/parameters adopted in land use planning are given in **Table II**.

2.5.7 It would be seen from the proposed land-use structure that public and semi-public uses constitute a large percentage of the total area, because Auroville, having been conceived and designed as a Universal Township, will provide a number of international pavilions, cultural and educational centres of a high order. Under Transport & communication, roads, cycle tracks and footpaths are included. The above table excludes the urban uses in the Green Belt which extend to 156 ha. including roads.

Table 11: Principal Planning Policies

Sector of Development	Planning Policies/Parameters
1. Residential	<ul style="list-style-type: none"> Maximum living space per person: 30 sqm Range of densities and interesting architectural forms 50% unpaved area as permeable space Collective and community use Eco friendly practices in water and energy management Pedestrian and cycle ways Harmonious landscaping and tree planting
2. Industrial	<ul style="list-style-type: none"> Clean, non-polluting industries Small and medium scale Expand local employment Vocational training for youth Encourage local entrepreneurship Good working environment for workers Efficient management practices
3. Education and Culture	<ul style="list-style-type: none"> International studies on Humanity Indian / East-West Culture Synthesis of knowledge Arts, craft and technology
4. International	<ul style="list-style-type: none"> International pavilions for cross country exchange Science and technology Culture, philosophy and humanities
5. Building Development	<ul style="list-style-type: none"> Innovative, low energy consumption, cost-effective technology, eco-friendly, barrier-free architecture, indigenous materials
6. Water	<ul style="list-style-type: none"> Water harvesting Watershed management Waste water recycling Aquifer storage and recovery Preventing saline intrusion Water conservation

Table 11: Principal Planning Policies

Sector of Development	Planning Policies/Parameters
7. Energy	Use of solar, wind and biomass energy Better demand and supply side management
8. Solid waste	Segregation at source Composting and recycling Special disposal of hazardous and biomedical waste Attaining zero garbage situation
9. Traffic and Transport	Exclusive pedestrian and cycle paths Encouraging non-polluting traffic Service nodes for interface with villages Designing non-polluting vehicles
10. Health	Synthesis of a wide range of medical knowledge Emphasis on indigenous systems Good healing practices
11. Green Belt	Healthy productive employment Field laboratory for best practices in eco-friendly techniques Environmental sustainability Food security Developing urban-rural linkages
12. Bio region	People's participation in sustainable development Improving sanitation and water supply Improving housing through cost-effective techniques Innovative research programmes Better agriculture practices

2.5.6 The proposed land uses zone wise are detailed out in **Table 12** and depicted in the **Drawing 6** of the Proposed Land Use. The proposed land use in the green belt is indicated in **Table 13** and the re-grouping of the land uses as per the general land use classification is given in **Table 14**.

Table 12: Proposed Land Use Zones – 2025

(City Area / Developed Area)

Use Zone	Area in ha.	%	Principal Uses
Peace Area	28	5.7	Matrimandir, Lake, Gardens
1. Residential Zone	173	35.2	
	160	32.6	Residential houses, apartments in five sectors at different densities, and basic community facilities.
Crown	13	2.6	Shopping, utilities, communication, recreation and community facilities of higher order, supporting residential use.
2. International Zone	68	13.9	
Pavilions	63.5	12.9	National and international pavilions, conference and exhibition halls.
Crown	4.5	1	Utilities, communication, shops and other common facilities related to the main activity in the International Zone, including housing and staff quarters.
3. Industrial Zone	126	25.7	
Economic	94.5	19.3	Non-polluting manufacturing units, including cottage industries.
Crown	8.5	1.7	Hostels, dormitories, guesthouses and supporting facilities for the main activity in the zone.
Administration	7	1.4	Town Hall, City Administration offices and housing.
Vocational Training	16	3.3	Vocational training centres, research institutions including laboratories.

Table 12: Proposed Land Use Zones – 2025

(City Area / Developed Area)

Use Zone	Area in ha.	%	Principal Uses
4. Cultural Zone	96	19.5	
Major cultural	91	18.5	Educational Institutions, University, sports centres and staff quarters.
Crown	5	1	Shopping, utility, communication and recreation centres and related facilities supporting cultural activities in the zone, including housing.
Total	491	100	

Table 13 : Proposed Land Use in the Green Belt - 2025

	Area in Ha	%	Principal uses
Built (*) (Existing settlements to be retained)	156	10.5	Auroville Communities and Village Residential Areas, Service Nodes and utilities and main access roads.
Unbuilt	1316	89.5	Farming and Forest type uses and recreation, bird & wild life.
Total	1472	100	

Note(*): The existing settlements in the proposed Green Belt are subsidiary to agriculture, forestry, plantation, land development and as such they are proposed to be retained in the future development of Auroville township. However, there would not be any substantive extensions in these settlements not related to principal use. Similarly, the existing village settlements are also part of the built up area and would require to be retained.

Table 14: Detailed Land Use in City Area – 2025

Use	Extent in Ha	%	Remarks
1. Residential	121	24.64	Residential Zone 80% Other zones 20%
2. Commercial	20	4.1	Mostly in Crown Area connecting the zones
3. Industrial	56	11.4	Industrial Zone/Manufacturing units
4. Public & Semi-public	159	32.38	
a. Matrimandir	28	5.7	Peace Area
b. Pavilions	38	7.73	International Zone
c. Educational & Cultural	73	14.86	Cultural and Residential
d. Administration, utilities & other uses	20	4.07	Industrial and other zones
5. Open space & recreation	46	9.36	To be provided in all zones
6. Transport & communication	89	18.12	To serve all zones
Total	491	100	

2.5.8 Land Use in the Green Belt Zone: The unbuilt area in the Green Belt Zone will have three broad categories of land use, viz. Agriculture and Farming, Forest and Land Regeneration and Recreational areas. Their development is designed to promote bio-diversity, environmental restoration, land regeneration, water management, and technology transfer of the above activities for wider application. This will make the Green Belt not only an asset to Auroville and the surrounding villages, but also a National Resource Centre (NRC) for sustainable development.

(a) Agriculture and Farming

The western part of the Green Belt, consisting of eris, natural drainage channels and village settlements, is reserved for intensive agricultural development. They cover approximately 500 ha. At present these lands are vacant or marginally used. They will be utilised to set up prototype farms for raising appropriate crop varieties that can be efficiently produced in differing geographic conditions in Tamil Nadu, in order to replicate them for the benefit of farmers in these areas. The geographic regions will correspond to the five-fold traditional regional classification in Tamil Nadu of Kurinji, Mullai, Marudam, Neithal and Palai.

Auroville's ongoing work in water management, soil conservation, organic farming and seed collection, which is being carried out in collaboration with state, national and international research institutions and agencies, will promote food security and optimise the agro-economic potential both locally and nationally.

(b) Regenerated land and plantations

The eastern part of the Green Belt, which has already been developed with dense plantations of trees, acts as a barrier against cyclone-strong winds coming from the coast, which were until recently the main cause for soil erosion, gully formation and degradation of land.

These lands occupy about 560 ha. They will be utilised to strengthen the ongoing work of land regeneration, to re-establish indigenous forest vegetation, to propagate biodiversity through gene pools and seed banks, and to institute zero-runoff parameters and practices. This part of the Green Belt will also serve the Auroville township by carrying out waste water treatment and recycling, solid waste management and experiments for producing alternate energy through the use of biomass and wastes. In this regard Auroville is already collaborating with state and central government agencies.

(c) Recreation

Another purpose of the Green Belt is to provide open-air recreational facilities for the inhabitants. An extent of 256 ha. has been designated for this purpose, which will also include a botanical garden and agro and social forestry for the benefit of neighbouring villages. Within this zone, a modern burial and cremation site is also proposed.

2.5.9 The summary of uses in the green belt along with implementing partners is given in **table 15**.



Planting trees in the green belt

Table 15: Summary of Uses in the Green Belt

Main Uses	Implementing partners *
<p>1. Agriculture and Farming Water management Aquifer storage and recovery Soil conservation Farming including organic farming Climatic promotion Fisheries Village development & service nodes Agro- & social forestry</p>	<p>Auroville groups: Auroville Farm Group Auroville Green Work Resource Centre (AGRC) Water Harvest, Palmyra Auroville Village Action Group (AVAG) Land Use Coordination</p> <p>Collaborating Partners: Tamil Nadu State Council for Science and Technology Govt. of India Development Research Corporation National Wasteland Development Board AME (The Netherlands), DANIDA (Denmark) GIFRID (German-Israel Govt. Collaboration) Stichting De Zaaier (The Netherlands) DFID (UK), South East Asia Seed Bank</p>
<p>2. Forest and Land Regeneration Indigenous forests Sacred groves Biodiversity park Medicinal plants Dairy, orchards Zero runoff practices Waste water recycling Solid waste recycling Alternative energy Energy plantation Vegetables, flowers Building & road material & transport technology Village service node Technology transfer and dissemination</p>	<p>Auroville groups: Auroville Green Work Resource Centre Palmyra, Pitchandikulam Bioresource Centre Shakti, Water Harvest Auroville Centre for Scientific Research (CSR) Auroville Building Centre, Land Use Coordination</p> <p>Collaborating partners: State Council of Science and Technology State Dept. of Environment, Forest & Rural Development Ministry of Environment & Forest National Wasteland Development Board Rajiv Gandhi Drinking Water Mission HUDCO, NBO, BMTPC, MNES, Andaman Ecological Team, UNCHS, European Commission, SWISSAID, GTZ, GATE, KFW, BORDA (Germany), German Agro-Action, Commonwealth Human Ecology Council (CHEC), INERP Association Scientifique (France) Threshold Foundation (US), Stichting de Zaaier (The Netherlands), Canada Fund, ICEF (Indian- Canadian Environment Facility)</p>

Table 15: Summary of Uses in the Green Belt

Main Uses	Implementing partners *
3 Recreation Botanical gardens Poultry farm Burial and cremation site Village service node	Auroville groups: AGRC, AVAG, Land Use Coordination Collaborating partners: State and GoI Departments of Environment, Rural Development.

* Indicates principal partners who are at present involved in such activities. It is anticipated that there will be additional collaborating partners as Auroville's activities increase.



2.6 PHYSICAL AND SOCIAL INFRASTRUCTURE

A. Physical Infrastructure

Road network: The road network, consisting of four types of roads, is planned to meet the future requirements of traffic and functioning of the Township. The proposed road network is shown in the proposed land use plan as well as in **Drawing 7** on the hierarchy of roads. Road sections are shown in **Drawing 8**. The four types of roads and access ways in order of hierarchy are as follows:

Access Roads to Auroville: Four principal accesses are proposed. Two accesses are from the Tindivanam-Pondicherry Road, connecting the Industrial Zone and the International Zone. The other two accesses are from the East Coast Road (ECR), which would link the Residential Zone and the Cultural Zone. Thus each zone will have an independent access from state/national highways. These roads will provide links to the outer ring road of the City.

There would be bypass links where the existing narrow roads pass through village settlements. The right of way of these roads is suggested to be 30 m.

City Ring Roads: Two ring roads are proposed within the City area, one circumscribing the four main use zones and the other adjoining the utility zone which is designated as the Crown road. The right of way of these roads is also suggested to be 30 m. These two ring roads will help in

distributing the traffic to the different zones.

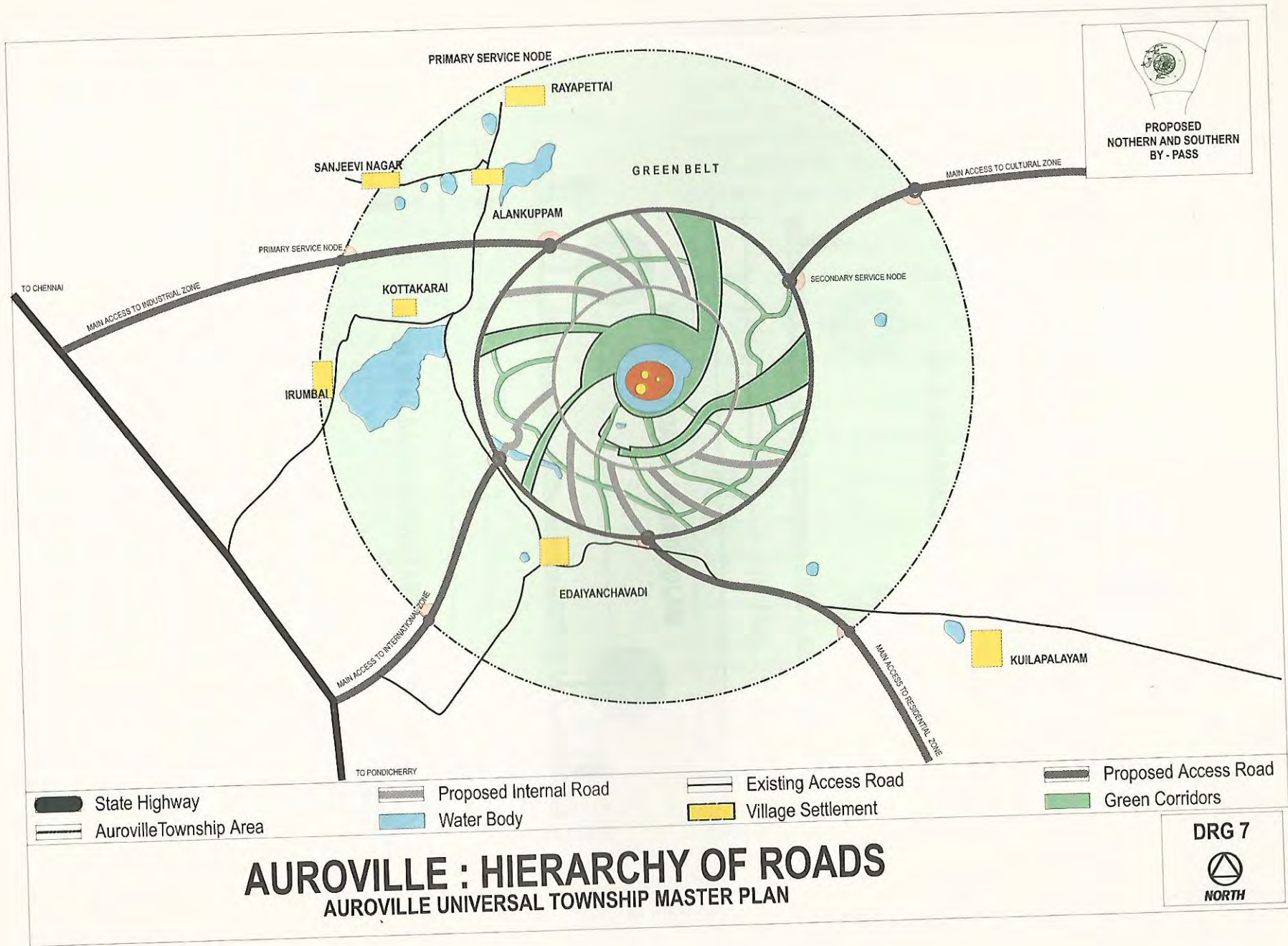
The entire City area has been envisaged as a "non-polluting vehicular zone". Accordingly, the ring road circumscribing the City Area will be used by progressively non-polluting vehicles.

Internal Distribution Roads: The internal distribution roads consist of vehicular roads as well as pedestrian and cycle paths. The rights of way of vehicular roads would vary between 18-24 mt. depending upon their functions.

Pedestrian and cycle paths will be integrated with open spaces and green corridors. A minimum of 3 m width would be reserved for pedestrian and cycle movement.

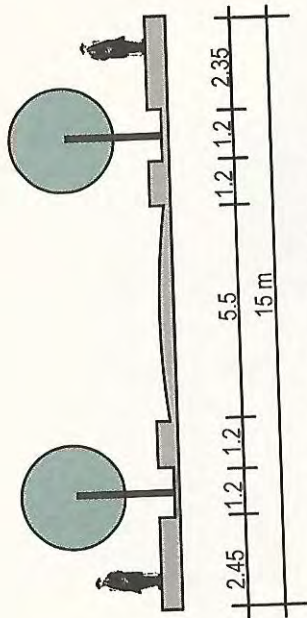
Service Nodes: Two kinds of service nodes are proposed. These service nodes are provided in the Green Belt were proposed at the intersection of the four main access roads linking the township and the City area. The first one would be called Primary Node and the latter one, the Secondary Service Node, as indicated in the schematic layout of Service Nodes. These service nodes will provide adequate parking and transshipment space for changing over to 'non-polluting' mode before entering the City. These service nodes will also offer other facilities for providing a convenient interface with neighbouring village settlements.

2.6.1 In addition to the main categories of roads discussed above, two bypass roads are also suggested, one in the north and another in the south of the township to facilitate diversion

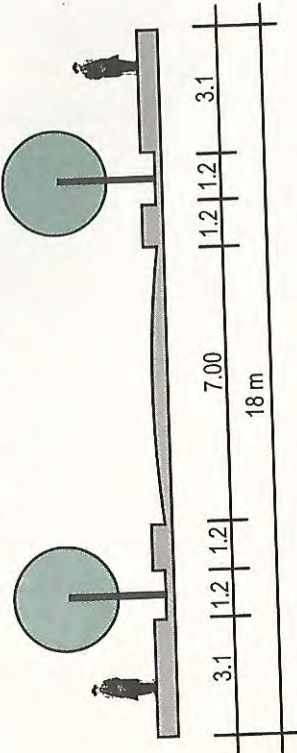


AUROVILLE : HIERARCHY OF ROADS

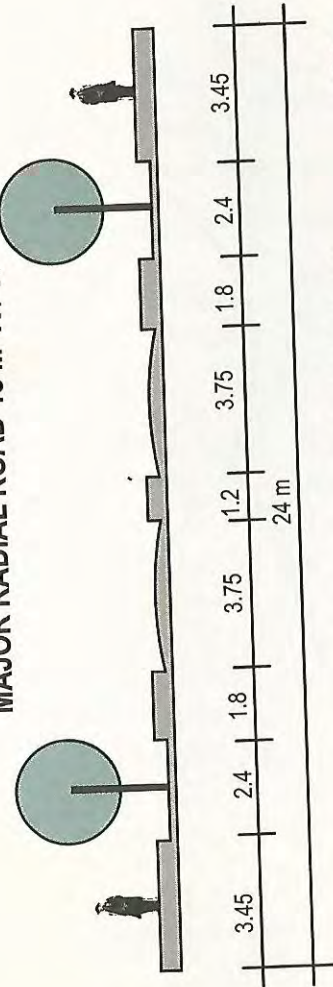
AUROVILLE UNIVERSAL TOWNSHIP MASTER PLAN



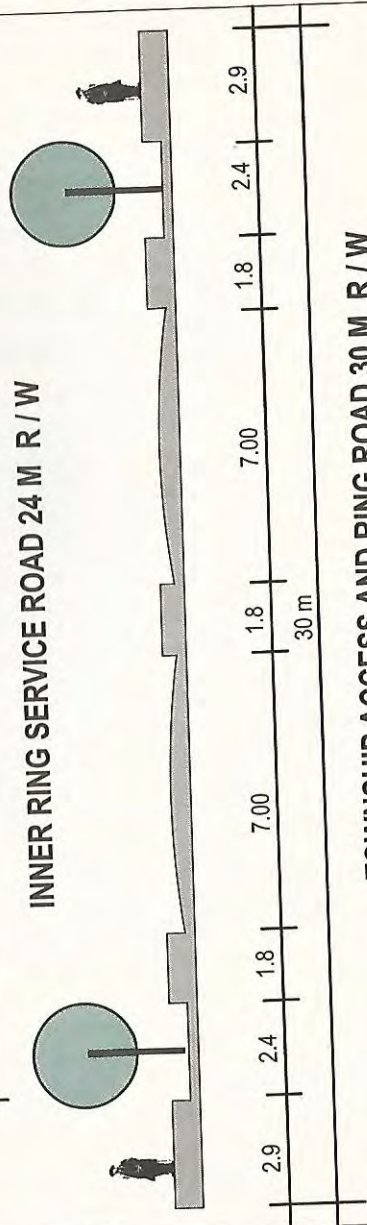
OTHER ROADS 15 M R / W



MAJOR RADIAL ROAD 18 M R / W



INNER RING SERVICE ROAD 24 M R / W



TOWNSHIP ACCESS AND RING ROAD 30 M R / W

ROAD SECTIONS
 AUROVILLE UNIVERSAL TOWNSHIP MASTER PLAN

DRG 8



of traffic not bound for Auroville. The planning and construction of these roads as well as the main access roads up to the service nodes need to be taken up by the concerned departments of the State Government for providing efficient linkages to the township.

2.6.2 Water Supply: The Auroville region gets an average rainfall of around 120 cm/annum (as observed during the years 1972-83), as per the following distribution given in **Table 16**:

Period	Precipitation in cm
S.W. monsoon (June-Sept)	41.5
N.W. monsoon (Oct-Dec)	75.9
Winter (Jan-Feb)	1
Hot weather (March-May)	4.5
Total	122.9

2.6.3 In spite of such a good amount of rainfall, the water situation in the region is not satisfactory because of excessive runoff, limited surface storage and inadequate knowledge of aquifer storage areas. Evaporation losses are also considerable due to high average temperatures in the area which go up to 38.8oC in June. Hydro-geological studies made so far revealed that there is adequate

potential for groundwater supply of good-quality potable water as long as there is no saline intrusion due to over-extraction. These studies also revealed that water could be tapped both from open wells (3 to 12 m. below ground level) and tube wells. The estimated total yield from rainwater is 25.48 million cu.m. The runoff itself when harvested is estimated between 7.70 million cu.m and 2.84 million cu.m giving an average of 5.28 million cu.m.

2.6.4 The demand for drinking water for Auroville will depend on population and level of supply. Estimates of the water supply needs for Auroville under varying per capita standards for a population of 15,000 in the first phase and 50,000 in the ultimate phase is given in **Table 17**:

Population	At litres per capita per day		
	70*	100@	200#
15,000	1.05 mld	1.5 mld	3.0 mld
1st Phase			
Annual need	0.383 mcum	0.547 mcum	1.094 mcum
50,000 (ultimate)	3.5 mld	5.0 mld	10 mld
Annual Need	1.278 mcum	1.825 mcum	3.650 mcum

* No Underground Sewerage

@ Partial Underground Sewerage

Includes supply for gardens and industries.

2.6.5 The annual requirement will range from 0.383 million cu.m to 3.650 million cu.m.. It is therefore clear that the per capita requirement should be established in such a way that the extraction is within safe limits of availability, taking into consideration that the rainfall will not be uniform in all years, and the possibilities of over-extraction and some extraction for irrigation purposes. Taking note of the fact that Auroville envisages development of less water consuming industries, national and international pavilions and cultural facilities of high order which occupy nearly 25% the developed area, it is therefore proposed to adopt the standard of 200 lpcd to meet the total requirements of the township. The component for residential supply will be only 135 lpcd. The annual water requirements for a population of 15,000 would therefore be about 3 million litre per day or 1.1 million cu.m. per year. Auroville's work in water management so far has been characterised by principles of zero runoff, conservation, and recycling and re-use of waste water. This work will be intensified so that additional requirements would be largely met through the recycling of waste water. Auroville will thus be able to meet all its water requirements comfortably, both in the first phase and the ultimate phase.

2.6.6 Water Supply Distribution: A predominantly decentralised system of extraction and distribution eminently fits the land use plan proposed for Auroville. Each of the principal zones will be supplied from local tube wells located in the particular zone itself or in the Green Belt adjoining the zone. The distribution system will also be localised for each zone. This will not only reduce the costs of laying long lengths of high diameter pipes, but also assist in recycling waste water for garden and other non-drinking uses close to the zone itself.

2.6.7 Sewerage and sanitation: Auroville has been experimenting with septic tanks, Imhoff tanks (both individual and at community level), leach pits and root-zone treatment of sewage for compact communities. The use of such facilities will continue in the Cultural and International Zones as well as in the Green Belt developments. Separate, partially centralised systems of collection and treatment will be considered only for the Industrial and Residential Zones to avoid contamination of groundwater.

2.6.8 The approach to sanitation will be through the use of a variety of night soil disposal methods, which include toilets/latrines of various designs and disposal methods. These will include FOLs connected to individual or community treatment facilities. Extreme care will be taken to see that these systems do not pollute the underground water resources on which Auroville and its neighbourhood depend.

2.6.9 Drainage: A storm water drainage system will be provided to fully support the "zero runoff" concept. Already many check dams across the canyons and earthen dams along and across roads divert the runoff into the ground below. In addition, Auroville is exploring rooftop water harvesting, as well as a proposal for a major water management project which involves collecting the excess runoff within the Green Belt and pumping it out to a central lake that is to be created. The infiltration from the lake would regularly recharge the aquifers and prevent saline intrusion into the aquifers due to over-extraction that may occur outside Auroville. The western part of the Green Belt, extending from Alankuppam village to

Irumbai village, is a good aquifer recharge and storage area, which can be used for water recovery when needed. These proposals will have greater relevance for the ultimate phase, but studies have already been commenced to explore them.

2.6.10 Solid Waste Management: Solid waste management in Auroville presently consists of sorting at source, efficient collection and recycling of both organic and non-organic wastes. Incinerable wastes are burnt at 800°C in a two-chambered LPG-fuelled incinerator at the Auroville Health Centre. Some of the non-recyclable wastes like batteries, rubber items, thermocole, film, glass and PET are stored in a special storage facility until a market or acceptable environment-friendly disposal solution is found.

2.6.11 The first-phase developments are anticipated to generate about 7 to 12 tons of waste based on a per capita generation of 0.5 to 0.75 kg. This would include garden wastes within the City Area, but excludes wastes from the Green Belt. The waste generated in the Green Belt would be utilised either as biomass fuel for producing electricity, or for conversion into soil nutrients and enrichers. The strategy and approach to solid waste management will include:

- Finding practical and ecological packing alternatives to reduce non-degradable wastes.
- Sorting wastes at source into 5 or 6 streams - paper, plastic, metal, glass, organic, batteries, etc.
- Converting recyclable wastes into useful products. This would

include conversion of compostable material to soil enrichers.

- Using building debris as road / building material.
- Using incinerable wastes to generate electricity.
- Scientific and safe disposal of bio-medical and hazardous wastes.

2.6.12 Auroville with its past experience will initiate and promote the "zero-garbage" concept to the maximum, so that no dumping or sanitary landfill is needed. Transportation of solid waste for disposal will also be minimal.

2.6.13 Power-Energy-Telecommunication: Concerned with the ecological implications of energy consumption, Auroville has been experimenting from the beginning with the use of renewable energy sources such as sun and wind that are continuously available, as opposed to fossil fuels (coal, oil, etc.). Auroville's vision is to become energy independent and self-sufficient, with all its energy requirements met from renewable sources.

2.6.14 Already 150 houses use solar photovoltaic electricity and solar water heaters for their energy requirements. There are about 140 solar water pumping systems and 30 wind pumps operational in Auroville for gardening and irrigation purposes. Specially designed ferro-cement biogas systems process animal and vegetable wastes to produce methane gas for cooking and organic fertilizer.

2.6.15 Auroville in co-operation with Government of India Departments has installed a 36.3 KW solar photovoltaic power plant close to the Matrimandir, which is the largest stand-alone

solar power plant in the country. A unique solar bowl has also been installed on the roof of the Solar Kitchen, which generates enough energy to cook meals for about 1,000 persons a day for the Auroville community.

2.6.16 Expanding the use of renewable resources is possible because of five workshops in Auroville which produce and market different types of renewable energy systems. However, due to limitations of technology and high cost, Auroville will have to draw its major power requirements for the first phase from the Tamil Nadu Electricity Board grid. Auroville is now drawing 2.1 million KW of power per year from TNEB and its demand in the first phase would be in the order of 20 million KW per year based on the present per capita energy consumption. Conservation measures are expected to bring this down to about 14 million KW. In order to fulfil its energy objectives Auroville is considering two important avenues:

- To build a wind farm in southern Tamil Nadu that would supply energy to the TNEB grid, which could be drawn at Auroville.
- To build gasifier plants in Auroville to draw energy from biomass resources in the region. Proposals for pilot plants of 3 MW total capacity are under consideration.

2.6.17 Solar photovoltaics will serve as the main energy source, backed up by the Tamil Nadu Electricity Board (TNEB). Alternative sources of energy will be incorporated. Solar panels will be installed on the rooftops. Auroville's

approach would consist of both Demand Side Management (reducing wastage) and Supply Side Management from renewable sources of energy.

2.6.18 The requirement of 10,000 telephone lines for Auroville is based on the fact that it will have a proportionately larger number of resource persons engaged in several activities of sustainable development which naturally means that use of computers would be more or less universal. Accordingly, the Auroville Telephone Service is negotiating with the Department of Telecommunications to fulfil its future requirement of 10,000 telephone lines.

B. Social Infrastructure:

2.6.19 The social infrastructure in Auroville will consist of two distinct parts namely the facilities needed by the residential population (which is predominantly located in the Residential Zone) and the other facilities that will be part of the main function of the Auroville Universal Township. The latter will be located mainly in the International and Cultural Zones. The social infrastructure required for serving the residential population is proposed to be at four levels namely,

- Cluster or community level, serving a population of 250 persons.
- Sector level, serving a population of 1,000 persons.
- Neighbourhood level, serving a population of 5,000 persons
- City/District level, initially serving a population of 15,000 persons with an ultimate target of 50,000 persons.

2.6.20 The social infrastructure has been worked out for a population of 15,000 Aurovilians that is to be achieved in the first phase. The facilities indicated under City/District level have been worked out for a population of 15,000, but will also serve the needs of a bigger population as the city grows. During periodical review, the infrastructure requirement for the increasing population would be assessed in the development plan after every five years and provided as per necessity.

2.6.21 Details of such facilities proposed at the four levels mentioned above, as well as the summary of land requirements for the social facilities for a population of 15,000 in the Residential Zone are indicated in the **Tables 18 and 19**. The allocation of land for various categories of facilities would be worked out on the basis of UDPFI guidelines.

2.6.22 Tourist Facilities: Auroville, by its very concept and the diverse activities in which it is involved, will draw a large number of visitors from abroad as well as from within the country, who come to experience both spiritual and material experiments and progress. It will also attract a number of general tourists, particularly to visit the Matrimandir and to shop for special handicraft works, for which Auroville is becoming an important centre both nationally and internationally. Facilities for this activity are being provided at strategic points within the City area itself as well as in the service nodes provided at the four approaches to the City. Such facilities will consist of guesthouses, restaurants, information centres and other amenities required by tourists.



Visitors



Table 18: Social Infrastructure requirement for a Population of 15,000
(No. of facilities at various levels)

Infrastructure	Total area (ha.)	Community Level	Sector Level	Neighbourhood Level	District / City Level
Population Served		250	1,000	5,000	15,000
Health	8				
Emergency Clinic		1			
Polyclinic			1	1	
Hospital					1
Alternative health Facilities			1	1	1
Education	80				
Crèche & Kindergarten		1			
School (age 6-10)			1		
School (age 11-19)				1	
University					1
Recreation					
Community parks & playgrounds		1			
Sector parks & playgrounds			1		
Neighbourhood parks & playgrounds				1	
City level playground					1
Commercial	30				
Shopping		5 shops	10 shops	25 shops	superstore
Guesthouses				2	8
Tourist centre					3
Culture	10				
Exhibition space			1		
Cinema				1(mini-cinema)	1
Auditorium					1

Table 18: Social Infrastructure requirement for a Population of 15,000
(No. of facilities at various levels)

Infrastructure	Total area (ha.)	Community Level 250	Sector Level 1,000	Neighbourhood Level 5,000	District / City Level 15,000
Population Served					
Utility & Services	25				
Maintenance centres			1	1	
Zonal offices					1
City level offices & Town administration					1
Burial & cremation site					1
Water distribution				1	
Waste water treatment				1	
Solid waste recycling				1	1
Service nodes	32				
Traffic & village interface facilities					8

Table 19: Social Infrastructure in Residential Zone

Infrastructure	Extent in ha.
Health	3
Education	7
Public & Semi-public	8
Shopping & Commercial	5
Recreation including open spaces & parks and playgrounds	17
Roads including cycle tracks and footpaths	30
Total	70

2.7 DISTRIBUTION OF THE ASSIGNED POPULATION

2.7.1 The ultimate population of 50,000, as well as the Phase I population of 15,000 is proposed to be distributed in various use zones as per the details given in **Table 20**.

Zone	Ultimate	Phase I
Residential	40,000	11,000
International	600	300
Industrial	1,800	600
Cultural	600	300
Crown area in all zones	5,000	1,800
Green Belt	2,000*	1,000*
All Zones	50,000	15,000

(*) Excludes the village settlement population in the Green Belt. The village population in the Green Belt in Phase I is estimated at 8,600 persons.

2.7.2 The main concentration of Auroville's population will be in the Residential Zone. The overall density in the Residential Zone will be 240 persons/ha. There will be housing developments ranging from low-density individual housing units to high-density community units as indicated in **Table 21**.

Type of housing	No. of floors
Single family dwelling	1-2
Low rise apartment	2-4
High rise apartment	5-8

2.7.3 The floor space per person will be in the order of 30 sq. m and 55% of the area will remain unpaved. The proposed development would be achieved in a unique way with lower densities closer to the crown area and higher densities as they approach the green belt, as per the original concept. The objective of the design is twofold:

- To establish that urban areas can and should achieve high densities, without compromising on form or amenities and without sacrificing or reducing the amount of open spaces, which determine the quality of environment and living conditions.
- To establish that conversion of agriculture lands for urban use should be avoided to the maximum extent.

2.7.4 Density and Distribution of Population: It is proposed that the Residential Zone be delineated into ten sectors of approximately 10 ha. each. Each of these sectors will be developed at densities varying from 100 persons/ha. to 640 persons/ha. particularly in high-rise building blocks in a wide range of urban forms. The net size of residential areas would be about 100 ha., which would provide a residential floor space of 1,500,000 sq.m. (FAR 150), that could accommodate the entire 40,000 persons at an average floor space of 30 sq.m. / person.

2.8 DEVELOPMENT MODELS FOR BUILT SPACE

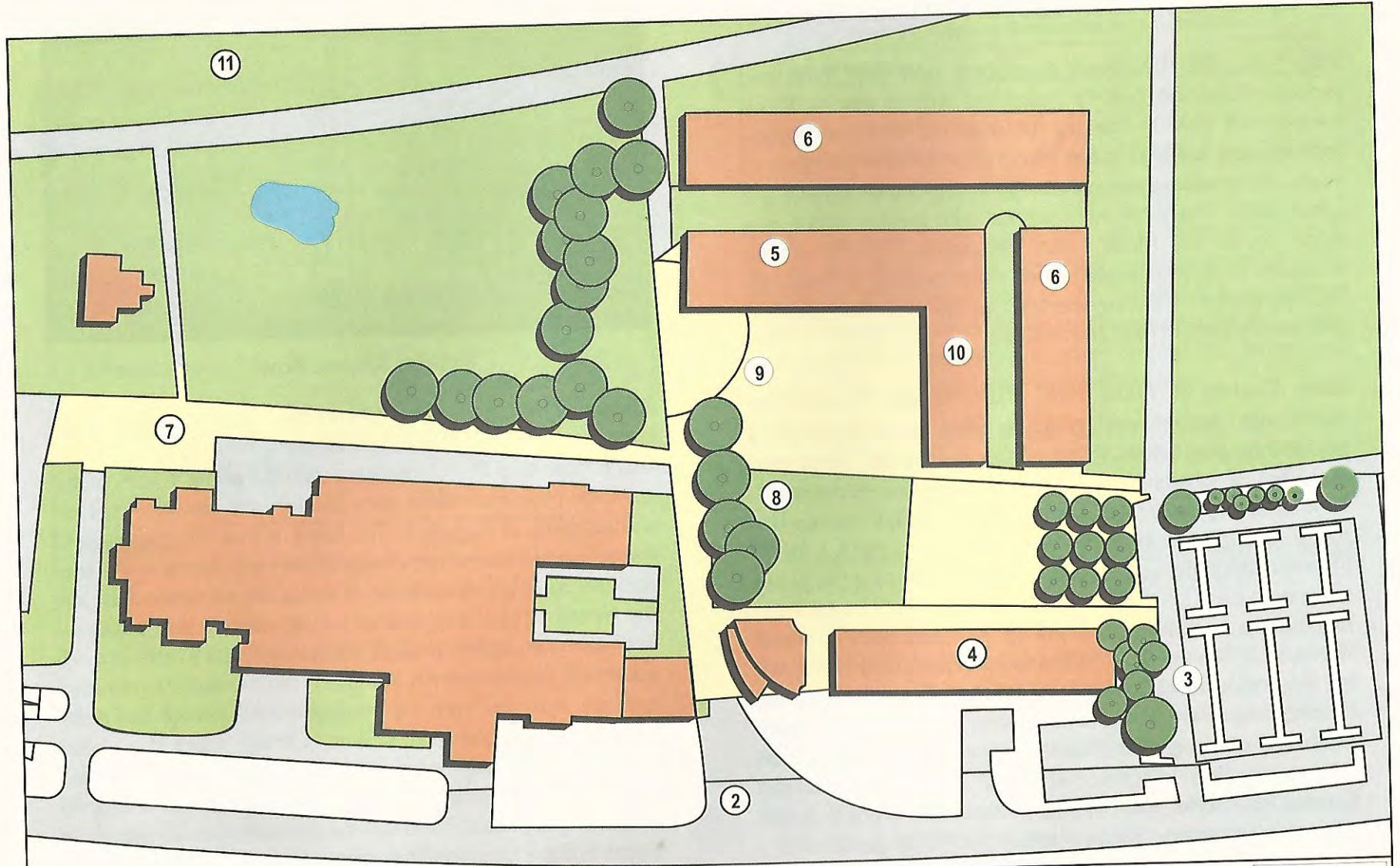
2.8.1 Auroville has been developing new and innovative models of planning, building design and built-up spaces. This is evident not only in the use of materials and construction technologies, but also in the introduction of new principles of waste treatment, water harvesting, energy development and other fields. This work will continue with greater vigour as a follow-up of the Master Plan (Perspective: 2025). A few examples of projects/experiments, either ongoing or ready for implementation, showing the type of development and the principles underlying such models are:

Solar Kitchen & Plaza: The Plaza complex houses the community kitchen and other facilities required for the inhabitants, particularly those of the Residential Zone, and includes a department store, library, restaurant, communication centre and multipurpose public space. This complex is located in the Residential Crown. Here it forms the main link between the four zones, connecting the public services in each zone. On the inner side of the Crown Road there will be a complex of buildings not more than 10 meter high and 20 meter wide, while on the periphery there will be a continuous boulevard. The complex will integrate several eco-friendly practices water harvesting, waste treatment and use of alternative energy. The solar bowl on top of the Solar Kitchen, which is already installed and functioning, is one of the largest in the world and it provides energy required for cooking meals for 1000 persons at a time in the community kitchen (**Drawing 9**).



Solar Kitchen Bowl

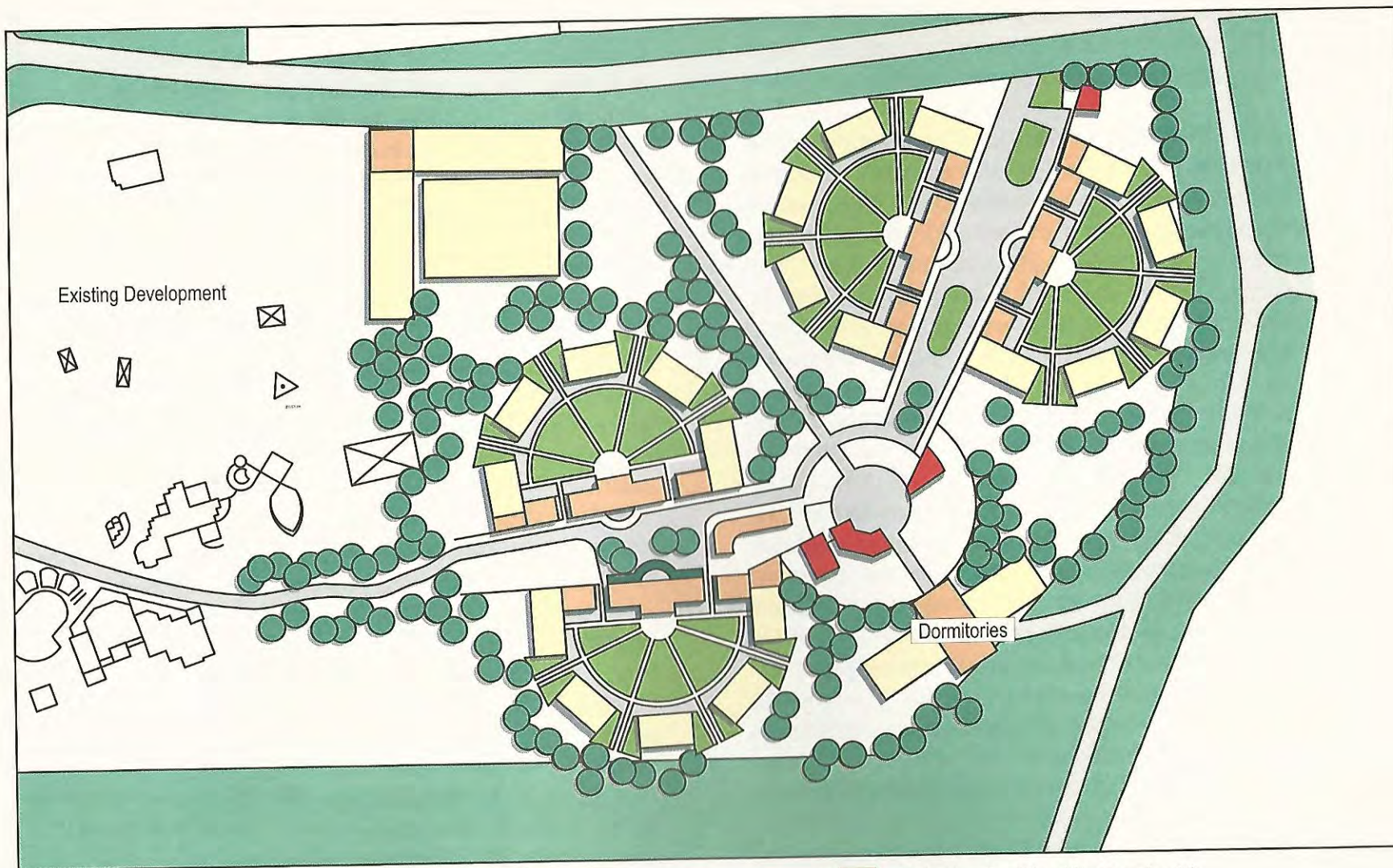
'Creativity' - Urban Eco-community: Creativity, a residential community, has been conceived as having housing units grouped into 6 clusters of 50-60 members each (**Drawing 10**). A central spine or pedestrian street runs through the site in a crescent shape serving all 6 clusters. This street is thus the main area of interaction and several community facilities spill over to it. Another pathway running perpendicular to it links the recreation area and the green corridor, and provides a quiet walkway and ambience. The different clusters enclose a courtyard space that is semi-public, yet protected from the larger community. The individual units are separated from the interaction zone through the buffer of buildings for common facilities. Climatic comfort is being emphasised by using insulating roofing material, cross-ventilation and appropriate landscape design. Apart from single and family units of varying sizes, there will be provision for 4-5 groups of singles to share common kitchenettes, living rooms and bathroom facilities to encourage social interaction and community building.



DEVELOPMENT MODELS PLAZA & SOLAR KITCHEN

- 1 - SOLAR KITCHEN 2 - CROWN ROAD 3 - PARKING 4 - POUR TOUS - FINANCIAL SERVICE 5 - MEDIA CENTRE AND LIBRARY 6 - EXPANSION
 7 - PEDESTRIAN BOULEVARD 8 - SEMI PAVED AREA 9 - PLAZA COVERED 10 - PLANNED GREEN AREA 11 - MAHALAKSHMI PARK

DRG 9



Existing Development

Dormitories

Residential Cluster Collective Facilities (cluster level) Collective Facilities (Common to all)

DEVELOPMENT MODELS - CREATIVITY HOUSING PROJECT

DRG 10



NORTH

Facilities for the whole cluster, such as common kitchen, laundry, internet, office, gym, TV and video room, and common study areas will encourage further interaction and avoid duplication.

Line of Force - 'Progress': 'Progress' is proposed as a collective building of medium density, to be constructed shortly in sector II of the Residential Zone. It is composed of 7 interconnected modules shaped as one of the lines of force of a galaxy. The dimension and height of these modules vary from ground + 1 floor to ground +6 floors, so that this building grows horizontally and slowly increases in height towards its end. The whole project is a research in medium-density housing, combining architecture and art, eco-friendly construction materials and techniques, ecological systems for water, energy and landscaping. It will provide accommodation for about 350 people. There will be some modules with pillared supports at ground level to allow air movement. 'Progress' will contain facilities to promote a more communal lifestyle. A number of common areas and collective services have been considered, such as kitchen and dining room, video room, laundry, swimming pool, library, communication centre and multipurpose spaces for physical exercise and cultural programs. Other facilities may be considered according to future needs and development. The collective life will be combined with a clear respect for individual movements and spaces. A special arrangement will be done for the youth. The modules can be built in phases and in various ways, allowing people to choose the part of the building which fits most with their lifestyle or present needs. There will be different types of apartments, varying in size, facilities and finishing. The finishings will be designed in consultation with artists to create beautiful spaces.

Savitri Bhavan: The proposed Savitri Bhavan is located in the Crown area of the International Zone. It will focus on studies related to Sri Aurobindo's revelatory epic 'Savitri'. It will accommodate facilities and activities to enhance the understanding and enjoyment of this text using supports such as an art gallery, hall, amphitheatre, library, audiovisuals, and office and study areas.

The Unity Pavilion: This proposed project is located in the Crown area of the International Zone. The Unity Pavilion will act as a seed and a catalyst for the development of the International Zone. It is seen as a movement to join forces, a transitional space and an experimental ground for the emergence of the individual pavilions. The Unity Pavilion complex will include spaces for offices, research, lectures, seminars, exhibitions and audiovisual equipment, as well as performance areas and guest accommodation. The focus of the work in the Unity Pavilion will be collaboration and development of the continental areas and the interaction of cultures beyond national borders.

Bharat Nivas: Bharat Nivas is the Indian pavilion in the International Zone. It consists of an 840 seat auditorium, a Centre for Research in Indian Culture and its guesthouse facility. Presently the campus acts as a hub of various town-related services such as town planning, archives, post office, public library, entry group, visa service, secretariat, Auroville Foundation office and many others.



Bharat Nivas model

Service Nodes: There are two types of service nodes suggested in the Proposed Land Use Plan. Primary Nodes, located at the boundary of the township, would regulate most of the visitors' traffic. The visitor would shift to a non-polluting transport mode to visit the various places in the township. It would also provide a space (for social as well as economic purposes) for interaction between Auroville and the surrounding villages. It will include tourist related facilities and services. Secondary service nodes are proposed to function as additional regulatory / channelising nodes up to which the resident could bring their vehicles for parking and garage facilities. As Auroville has yet to acquire a large amount of land, especially in the green belt area, the secondary nodes, which are closer to the city area, would be developed first (**Drawing I I**).

2.8.2 All these models will be helpful in the implementation of various built components of the Master plan in an innovative manner. The architectural design of public buildings will be barrier free as per the requirements of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and will provide a wide variety of experiences through its landscape design concept.

2.9 IMPLEMENTATION AND MONITORING MECHANISM

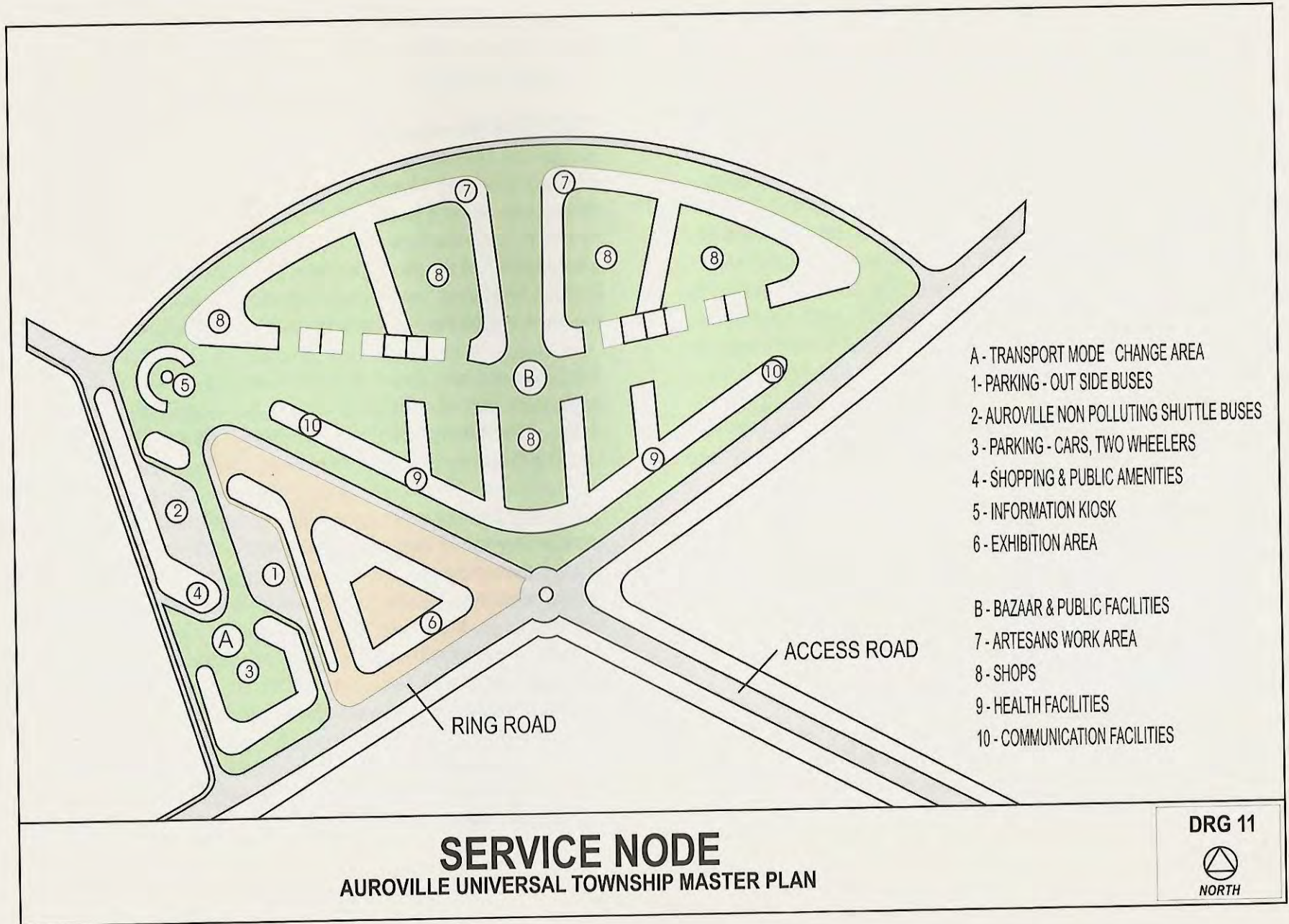
2.9.1 The implementation of the Master Plan (Perspective: 2025) for Auroville requires a more structured organisational set-up than hitherto available. A start will be made putting such

an organisation in place when the European Union funded project on the Centre for Innovative Urban Management becomes operational in early 2001.

2.9.2 The Planning Group will be responsible for the preparation of the Five Year detailed Development Plans followed by Annual Plans and Layout Plans/Detailed Schemes within the framework of the Master Plan (Perspective: 2025). The implementation and monitoring of the projects will continue to be the responsibility of the concerned AV group through their project leaders. However, the overall co-ordination and monitoring of the work will be the responsibility of the Planning Group.

2.9.3 There are three important aspects of the plan, the implementation of which will require full support and involvement of the Government of Tamil Nadu and the Pondicherry UT. The first one relates to the provision of main access ways to the township. There are four such principal access ways connecting the four main zones. The present accesses to these areas are narrow and pass through village settlements. Widening of the roads needs to be carried out on some stretches, and realignments need to be introduced to avoid disrupting village settlements. In the longer term it would also be necessary to establish the Northern and Southern by-passes connecting the East Coast Road and Tindivanam-Pondicherry roads to facilitate easy and direct access between these highways.

2.9.4 The second important aspect relates to securing the lands that are not under the ownership of Auroville for developments proposed in the Master Plan. For the securing of land, various



- A - TRANSPORT MODE CHANGE AREA
- 1 - PARKING - OUT SIDE BUSES
- 2 - AUROVILLE NON POLLUTING SHUTTLE BUSES
- 3 - PARKING - CARS, TWO WHEELERS
- 4 - SHOPPING & PUBLIC AMENITIES
- 5 - INFORMATION KIOSK
- 6 - EXHIBITION AREA

- B - BAZAAR & PUBLIC FACILITIES
- 7 - ARTESANS WORK AREA
- 8 - SHOPS
- 9 - HEALTH FACILITIES
- 10 - COMMUNICATION FACILITIES

options such as land exchange, lease of land, land pooling techniques etc., as indicated in Appendix IV, are suggested. This calls for the regulation of the use of lands not owned by Auroville to avoid non-conforming uses, and acquisition of such lands that are required for development by Auroville. The Auroville Foundation, being governed by an act of Central Government, anticipates full co-operation from the Government of Tamil Nadu and the Pondicherry UT in the implementation of these proposals.

2.9.5 Another important aspect is the development of villages within the designated area of Auroville as well as those in its 'bio-region'. Auroville groups are already assisting the villages in improving their socio-economic conditions. The five-year indicative plan has envisaged a provision of about Rs. 3 crores for this purpose. Auroville would collaborate with the village panchayats as well as with the Government in identifying development projects, and funds for projects will be sought from the Central Government and the State Government to support various aspects of development in these villages and the bioregion.

2.9.6 The proposed set-up in the Planning group provides for an independent Division which will be involved in implementation work. The details of the proposed structure for the implementation of the Master Plan (Perspective: 2025) is given in Appendix V.

2.9.7 The present momentum in Development and Environmental activities will be strengthened through a participatory Environmental Management process which will be integrated within all development, planning and urban design elements.



Kulapalayam village

2.10 PHASING AND RESOURCE MOBILISATION

2.10.1 The Master Plan (Perspective: 2025) has been conceived for a total population of 50,000, and takes into account a population of 15,000 by the year 2010. The Five Year Development Plan (2001-2006) proposals are given in **Table 22** along with the Five Year programme for overall city development and special projects.

2.10.2 In the Development Plan proposals for 2001-2006, Auroville proposes to invest Rs. 350 crores on infrastructure development, which will be funded from the sources given in **Table 23**, to accommodate the population growth.

2.10.3 A summary of the investments for 2001-2006 in residential, international, industrial and cultural zones is given in **Table 24**.

Table 22: Development Plan Five Year Programme 2001-2006

Project	Estimated Cost (Rs in Crores)
A. RESIDENTIAL ZONE	
I. Ongoing / projects in the pipeline:	
1. Rêve - 42 apartments	
2. Creativity - 50 apartments	
3. Line of Force Progress - 3 apartments	
4. Other Residential & related facilities	
Sub-Total	3.41
II. Proposals	
1. Land for immediate development (10 ha.)	0.80
2. Residential units for 4000 persons in an area of 120,000 sqm	96.00
3. Social infrastructure (3000 sqm)	2.40
4. Crown development (3000 sqm)	3.00
5. Off-site infrastructure (16 ha.)	0.96
6. Land required for 2 nd stage of development (6 ha.)	0.60
Sub-Total	103.76
Total (Residential Zone)	107.17

Table 22: Development Plan Five Year Programme 2001-2006

Project	Estimated Cost (Rs in Crores)
B. INDUSTRIAL ZONE	
I. Ongoing / projects in the pipeline:	
1. Incense, food processing and soya units	0.76
2. Town Hall	0.50
Sub-Total	1.26
II. Proposals	
1. Land for immediate development (10 ha.)	0.80
2. Industrial space (15,000 sqm)	12.00
3. Town Hall	4.50
4. Residential units (500 - 15,000 sqm)	12.00
5. Social & workers welfare infrastructure (2000 sqm)	0.16
6. Off-site infrastructure (8 ha.)	0.48
7. Crown development (4000 sqm)	4.00
8. Land acquisition for 2 nd Stage (7 ha.)	0.70
Sub-Total	34.64
Total (Industrial Zone)	35.90

Table 22: Development Plan Five Year Programme 2001-2006

Project	Estimated Cost (Rs in Crores)
C. INTERNATIONAL ZONE	
I. Ongoing / projects in the pipeline	
1. Bharat Nivas	0.35
2. Tibetan Pavilion	0.80
3. Unity Pavilion	0.24
4. Visitors Centre extension	0.20
5. Guest House	0.15
6. Savitri Bhavan extension	2.90
Sub-Total	4.64
II. Proposals	
1. Land for immediate development (10 ha.)	0.80
2. National Pavilions	7.50
American, Russian, African and Tamil Cultural Centre (5000 sqm)	9.00
3. Centre for International Research on Human Unity (CIRHU) (6000 sqm)	
4. Crown development (12000 sqm)	4.80
200 units residential (6000 sqm)	6.00
+guest houses, visitors (6000 sqm)	0.42
5. Off-site infrastructure (7 ha.)	0.60
6. Land for 2 nd Stage (6 ha.)	29.12
Sub-Total	29.12
Total (International Zone)	33.76

Table 22: Development Plan Five Year Programme 2001-2006

Project	Estimated Cost (Rs in Crores)
D.CULTURAL ZONE	
I. Ongoing / projects in the pipeline:	
1. High school	1.30
2. Sports complex, Evening school, Arts workshop and glass training centre	0.90
Sub-Total	2.20
II. Proposals	
1. Land required for immediate development (10 ha.)	0.80
2. Cultural & Educational complex (20,000 sqm)	20.00
3. Crown development (300 units = 9000 sqm)	7.20
4. Residential + 6000 sqm for social infrastructure	6.00
5. Off-site infrastructure (10 ha.)	0.60
6. Land for 2 nd Stage (5 ha.)	0.50
Sub-Total	35.10
Total (Cultural Zone)	37.30

Table 22: Development Plan Five Year Programme 2001-2006

Project	Estimated Cost (Rs in Crores)
E. GREEN BELT	
I. Ongoing / projects in the pipeline:	
1. Restoration of TDEF	
- Botanical Garden, Check dams, Afforestation, Seed Bank, Farming, Organic Agriculture	3.50
Sub-Total	3.50
II. Proposals	
1. Applied research projects in aspects of urban & rural sustainable development, including farming and forestry	10.00
2. Village development & environment improvement	3.00
3. Service nodes - 1 primary & 2 secondary nodes	2.00
4. Development of city level recreational facilities	3.00
5. Cremation and burial site	1.00
6. Pathways & cycle tracks with culverts (12 km.)	0.12
7. Land acquisition (400 ha.)	40.00
Sub-Total	59.12
Total (Green Belt)	62.62

Table 22: Development Plan Five Year Programme 2001-2006

Project	Estimated Cost (Rs in Crores)
F. CITY DEVELOPMENT & SPECIAL PROJECTS	
1. Main access road	
Township access road (9 km.)	0.90
Land for widening by 20 m = 18 ha.	1.44
2. Crown & outer ring (16 km)	1.60
Security lighting	0.75
3. Transport vehicles 10 nos (non polluting)	1.50
4. Centre for Innovative Urban Planning	2.50
5. Archaeological projects	1.00
6. Environmental laboratory	1.00
7. Documentation, information dissemination and city networking	3.50
8. Biomass energy generation	12.00
(6 units of 1/2 Mw = 3 Mw)	
9. Solar application for pumping, etc.	2.00
10. Renovation of Irumbai Temple including landscaping lighting & renovation of tank, as a religious and cultural resource for surrounding villages	0.25
Total (City Development & Special Projects)	28.44
Grand Total	341.19

Table 23: Funding Sources for Development Plan (2001-2006)

Source	Amount (Rs. in crores)
Auroville commercial units	50.00
Consultancy from AV Research	10.00
Grants for projects	
1 India	65.00
2 International	100.00
Private donations from India and abroad	50.00
Contributions from AV residents	75.00
Total Rs. in Crores	350.00

2.10.4 Auroville activities are financed by donations and financial inputs from residents, through income generated by Auroville-run business units, and grants and donations from

national and international agencies. Auroville, being an institution that has been established through an Act of Parliament, also obtains financial support from the Government of India.

2.10.5 The sources of funding for the Auroville activities are:

Trusts under the Auroville Foundation: At present, there are over a hundred large and small commercial units grouped in 15 trusts under the Auroville Foundation. During the financial year 1999-2000 alone, 20 small-scale units were added. Over the past 10 years, commercial units have contributed finances in the order of Rs.10 crores towards Auroville's maintenance and development.

Table 24 : Summary of Investments 2000 – 2006
(Rs. In Crores)

Zones	Total	Res.	Indus	Admin, Crown & Pavilions & culture	Social Infrast.	Physical Infrast.	Land	Sustainable develop. & village develop.	Other
Residential	107.17	99.41	-	-	5.40	0.96	1.40	-	-
Industrial	35.90	12.00	12.76	5.00	4.16	0.48	1.50	-	-
International	33.76	4.80	-	21.14	6.00	0.42	1.40	-	-
Cultural	37.30	6.00	-	22.20	7.20	0.60	1.30	-	-
Green Belt	62.62	-	-	-	-	3.12	40.00	19.50	-
Overall city	28.44	-	-	2.50	-	20.19	-	-	5.75
Total	305.19	122.21	12.76	50.84	22.76	25.77	45.60	19.50	5.75

Note : Parameters for Project Cost Estimates are given in Appendix VI

Centre for Scientific Research (CSR): The CSR is a research institution set up in 1984 to focus on research and development in the field of renewable energy, wastewater recycling and sanitation, and appropriate building technology. Its activities include R&D projects, transfer of technology via training programmes and workshops, promotion of renewable energy systems, dissemination of information via seminars, workshops and publications, production of ferrocement building components and biogas plants, architectural design, consultancy and construction projects. It receives funds from national and international agencies, which are also channelled into Auroville's development.

Government of India: The Government of India's support for Auroville activities in the last 10 years has been in the order of Rs. 8 crores.

Grants and Donations: International grants and donations, both from India and abroad, are channelled through Auroville Fund. Similarly, the Sri Aurobindo International Institute of Educational Research (SAIIER) receives Indian and international funds for its cultural and educational activities. Auromitra Trust receives funds for environmental, social, technological and research programmes in the field of soil and water conservation, afforestation and farming.

2.10.6 During the past 10 years (1990-2000) Auroville has mobilised about Rs. 60 crores, the break-up of which is given in **Table 25**.

Table 25 : Source of Funding 1990 – 2000

Source	Rs. in Crores
Auroville commercial units	10
Government of India	8
Sources from India	19
International sources	23
Total	60

2.10.7 These funds have helped to finance and create assets which include a variety of infrastructure assets in the sector of road building, water and sanitation, power (including from alternate sources such as solar, wind and biomass), telecommunication, and housing for Auroville residents. It is established that the total value of assets created over the last 30 years is in the order of Rs.500 crores.

2.10.8 Mobilisation of Resources for Development: Even with limited resources, Auroville has undertaken innovative projects in human settlement building, which integrates environmental regeneration with urban development, on the national and international scene. This has generated interest from agencies, which are funding such sustainable development programmes, to support the further development of Auroville. A recent instance is the financial assistance from the European Union under its Asia Urbs programme towards the construction of a Centre for Innovative Urban Management, which has also put in place an effective municipal structure for Auroville's future development.

2.10.9 Auroville's work in the various sectors of innovative and appropriate technology, both in rural and urban areas, has been recognised by both the State Government of Tamil Nadu and the Central Government, which have provided grants via various ministries. Also, the expertise accumulated over the past 30 years is attracting consultancy assignments from both non-government and public agencies from within India.

2.10.10 The organisational structure that is expected to be created shortly will explore other resource/avenues for funding and working out the projects in greater detail to meet the requirements of funding agencies. However, as Auroville is a unique experiment quite different from other towns, it cannot obtain resources from traditional sources such as loans and bonds for all its development. Auroville's commercial units have been increasingly contributing to its development, but they would not be able to fund all of the anticipated developments. In the first phase, Auroville will continue to depend upon project funds and contributions from its present and future residents.

2.11 REVIEWING THE MASTER PLAN (PERSPECTIVE: 2025)

2.11.1 Although the Master Plan (Perspective: 2025) indicates a time horizon of 25 years, it will neither be traditional, nor static and rigid. In the framework of Perspective 2025, the Planning Group would prepare a detailed Five Year Development Plan containing the priority items to be taken up for development as given in Table 22. At the close of the first Five Year Development

Plan, the progress would be assessed. A second-phase detailed development plan would then be prepared on the basis of the feedback obtained from the field/monitoring which will be followed by further detailed development plans for subsequent five-year periods.

2.11.2 The inputs for the review will flow from the implementation of five-year Development Plans and the monitoring of Land Use Regulations. Two Groups, namely the Planning Group and the Implementation and Monitoring Group (cf. Appendix V on the Organisational Structure), will assemble the necessary data required for such a review. The review process will be the same as the process followed for the preparation of the Perspective Plan, and the results will be approved by the Governing Board in consultation with the supervisory Ministry, namely the HRD Ministry of Government of India.

Meditation under the Banian tree



3. **Part Three**

Development Promotion
Code / Regulation

3.1 ZONING AND DEVELOPMENT PROMOTION REGULATIONS

3.1.1 To achieve an orderly and balanced development, there cannot be a complete freedom for individuals, groups of individuals or institutions to carry out developments without consideration for the surrounding environment. Development guidelines need to be established, which would encourage development without violating the principles of planning for the common good. Therefore a number of zoning and development promotion regulations have been drawn up. The regulations cover four broad areas, namely land uses (what is permissible and what is prohibited), maximum buildable area on all floors in a given context, total floor area that can be covered on a site and minimum size of site required for development where applicable.

3.1.2 All project holders will have the freedom to try out innovative developments as long as the basic parameters of the Master Plan (Perspective: 2025) are met. The Planning Group envisaged under the Master Plan (Perspective: 2025) will be in charge of ensuring that all future projects conform to these regulations. These regulations would also serve as guidelines for the use of lands, especially in the Green Belt. Support from the concerned local bodies, i.e. the Panchayats becomes very important to the proper implementation of the Master Plan (Perspective: 2025). Both Governments, State and Central, have fully recognised Auroville's beneficial and positive activities, and various Departments and Ministries such as Environment and Forest and Rural Development have been assisting Auroville in various ways including providing finance for projects. Similarly,

a large number of international development organisations are working with Auroville to promote a sustainable development that will benefit the country at large. The UNESCO on several occasions has recommended Auroville to its member states, requesting them to accord full support.

3.1.3 In order to build further on the foundation that has already been laid, the State as well as the Central Government need to ensure that the proposals of the Master Plan (Perspective: 2025), together with the Development Promotion Regulations, are implemented effectively for an orderly development of Auroville and its surroundings.

3.2 DEVELOPMENT PROMOTION REGULATIONS

1. Title

These regulations may be called "Auroville Universal Township Master Plan Development Regulations" (hereafter referred to as the "Master Plan Development Regulations").

2. Definitions

- (a) **Auroville Foundation** means the Foundation established under sub-section (1) of section 10 of the Auroville Foundation Act 1988.
- (b) **Development** is defined and understood as the carrying out of building, engineering, mining or other activities in,

over or under the land, or the making of any material change in the use of any building or land.

- (c) **Residents Assembly** shall have the same meaning as assigned to it in the Auroville Foundation Act, 1988.
- (d) **Master Plan** means the Master Plan of Auroville formulated by the Residents Assembly as per clause 19 (2) of the Auroville Foundation Act and approved by the Governing Board to ensure the development of Auroville as planned.
- (e) **Prescribed Authority** means the authority decided by the Auroville Foundation for operation and implementation of Master Plan including Development Promotion Regulations.
- (f) **F.A.R.** (Floor Area Ratio) means total floor area on all floors divided by the total site area multiplied by 100, i.e.

$$\text{F.A.R.} = \frac{\text{Total floor area on all floors}}{\text{Total site area}} \times 100$$

3. Permissible Land Use

- (a) All developments in the Master Plan Area shall conform to these regulations.
- (b) No land, premises or buildings shall be changed or put to any use not in conformity with the zoning regulations which are to be seen as part of these regulations.

4. Procedure For Development

- (a) Any person intending to carry out development on any land shall make a written proposal to the prescribed authority with such plans and particulars as may be required.
- (b) No person shall commence or carry out any development unless he or she has received the written approval from the prescribed authority.
- (c) Development proposals will be considered only if the development is:
 - i. In conformity with the requirements of these regulations.
 - ii. In conformity with the applicable building rules/regulations or other provisions of the National Building Code as may be specified.
 - iii. Effectively eco-friendly and environmentally appropriate as may be decided in each case.
- (d) The prescribed authority, after considering feedback that may be received, may:
 - i. Approve the proposal with such modifications as may be considered necessary or
 - ii. Return the proposal for re-submission with additional particulars, or
 - iii. Refuse approval, giving reasons for such refusal.

ZONING REGULATIONS

Zone/sub-zones	Uses permitted	Uses permitted on application to the prescribed Authority	Uses not permitted	FAR Max ground coverage	Minimum plot size		
1	2	3	4	5	6		
A. Peace Area	Matrimandir, lake, parks and gardens and other landscape elements enhancing the dignity, peace and harmony of the area.	Only uses accessory/ancillary to Matrimandir, namely: essential utility and transport related infrastructure, temporary non-polluting operational uses related to ongoing Matrimandir developments. Visitors facilities or any permissible structure not exceeding the height of 4.5 meters.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>10</td></tr> <tr><td>4%</td></tr> </table>	10	4%	—
10							
4%							
B. Residential Zone							
A - Primary Residential	Residential community buildings and uses consisting of dwellings, work studios, community meeting spaces, crèche, kindergarten and schools for age group 6-12, first aid centers, kiosks and convenience stores, tot lots, parks, playgrounds, and landscape elements, vehicle parking areas.	Handicraft ateliers up to 40 sqm and employing not more than three persons, including the residents.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>150</td></tr> <tr><td>40%</td></tr> </table>	150	40%	Group development 2 ha.
150							
40%							

1	2	3	4	5	6			
B - Crown	Dwellings and community level retail stores, display areas, communication and recreation centers, restaurant and dining, library and reading rooms, health centers, essential utility uses, indoor recreation, administrative sub-offices of city management, including: fire, water, sanitation, sub-post office, parks and green areas and vehicle parking.	Guest-houses, department stores, professional offices up to 40 sqm, utility maintenance centers, essential transport related infrastructure and conference facilities	All uses not specifically mentioned in col. 2 and 3	<table border="1"> <tr><td>200</td></tr> <tr><td>—</td></tr> <tr><td>60%</td></tr> </table>	200	—	60%	Group development 0.1 ha.
200								
—								
60%								
C. International Zone								
A - Pavilions	National and international pavilions, conference and exhibition halls, communication centers and visitors information centers and ancillary uses, residential staff quarters, hostels, guest houses, restaurants, kiosks and convenience stores, parks, playgrounds and green areas.	Medical centers, transport infrastructure.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>100</td></tr> <tr><td>—</td></tr> <tr><td>35%</td></tr> </table>	100	—	35%	2 ha. Group Development
100								
—								
35%								

1	2	3	4	5	6			
B - Crown	Residential staff quarters, dwellings, shopping arcades, restaurants, guest houses, hostels, indoor recreation, visitors facilities, banking and financial services, parks and green areas.	Dwellings and community level retail stores, display areas, communication and recreation centers, restaurant and dining, library and reading rooms, health centers, essential utility uses, indoor recreation, administrative sub-offices of city management, including: fire, water, sanitation, sub-post office, parks and green areas and vehicle parking.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>150</td></tr> <tr><td>—</td></tr> <tr><td>60%</td></tr> </table>	150	—	60%	0.1 ha.
150								
—								
60%								
D. Industrial Zone								
A – Manufacturing and Economic	Manufacturing services and other non-polluting industries, professional consultancy offices, retail and whole sale distribution, industrial display areas, R&D staff quarters, related welfare facilities, crèche, canteen, rest rooms, kiosk and convenience stores, and vehicle parking. Vocational training centers and related laboratories, City level administration offices. Parks and playgrounds and green areas.	Residential staff quarters, effluent and waste treatment plants and transport related infrastructure, material testing yards and buildings.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>125</td></tr> <tr><td>—</td></tr> <tr><td>50%</td></tr> </table>	125	—	50%	0.5 ha.
125								
—								
50%								

1	2	3	4	5	6		
B - Crown	Hostels, dwellings and guesthouses, post and communication centers, retail stores, banking and financial services parks and green areas.	Dwellings and community level retail stores, exhibition and display areas, conference hall, communication and recreation centers, restaurant and dining, library and reading rooms, health centers, essential utility uses, indoor recreation, administrative sub-offices of city management, including: fire, water, sanitation, sub-post office, parks and green areas and vehicle parking.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>200</td></tr> <tr><td>60%</td></tr> </table>	200	60%	Group development 0.1 ha.
200							
60%							
E. Cultural Zone							
A - Major Cultural	Educational institutions and research centers related to education, arts and sports, City level cultural uses including auditoriums, exhibition halls and incidental uses thereto., kiosks and convenience stores, parks and playgrounds and green areas	Residential staff quarters, major transport related infrastructure, stadium and large space consuming sports facilities.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>100</td></tr> <tr><td>40%</td></tr> </table>	100	40%	1.0 ha.
100							
40%							
B - Crown	All uses permissible in Residential Zone under col. 2, and galleries, guest rooms, dormitories, cafeteria, exhibition room, working ateliers.	Guesthouses, department stores and library, professional offices up to 40 sqm, utility maintenance centers and essential transport related infrastructure and conference facilities.	All uses not specifically mentioned in col. 2 and 3.	<table border="1"> <tr><td>150</td></tr> <tr><td>60%</td></tr> </table>	150	60%	0.1 ha.
150							
60%							

1	2	3	4	5	6		
F. Green Belt Zone							
A - Green Use Zone	<p>Agriculture, especially organic agriculture and rural development activities that can be applied to developing countries' situations, especially within the country and specifically Tamil Nadu, related to both traditional and modern geo-climatic, topographic and soil characteristics. Education, research including applied research in all areas of sustainable urban and integrated rural developments, including energy farms, water and waste management, traffic and transportation, forests, dairy, fruits and flowers, poultry and agricultural food products needed for the town. Botanical gardens, gene pools, bio-reserve. Ecological restoration, reforestation and restoration of the tropical indigenous forest. Watershed management and groundwater recharge. Co-development and partnership in these areas with the village settlements.</p>	<p>City level waste treatment plants and other uses. Dwellings will be restricted to essential operational persons. Uses associated with assembly and marketing and preliminary processing of farm products. Normal needs of village settlements.</p>	<p>All uses not specifically mentioned in col. 2 and 3.</p>	<table border="1"> <tr> <td>10</td> </tr> <tr> <td>5%</td> </tr> </table>	10	5%	<p>—</p>
10							
5%							
B - Service Nodes	<p>Public services & utilities</p>	<p>Infrastructure related uses</p>	<p>All uses not specifically mentioned in col. 2 and 3.</p>	<table border="1"> <tr> <td>75</td> </tr> <tr> <td>35%</td> </tr> </table>	75	35%	<p>—</p>
75							
35%							

Appendix

Appendix I

Members of Governing Board and International Advisory Council of Auroville Foundation

Governing Board

- | | | |
|----|------------------------------|---|
| 1. | Dr. Kireet Joshi
Chairman | Noted Educationist, former Special Secretary (Education) to the Government of India. |
| 2. | Dr. D.P. Chattopadhyaya | Renowned scholar, former Governor of Rajasthan, former Union Minister. |
| 3. | Dr. L.M. Singhvi | Member of Parliament, noted Jurist, former High Commissioner of India to the United Kingdom |
| 4. | Dr. Subhash C. Kashyap | Former Secretary General of Lok Sabha. |
| 5. | Mr. Roger Anger | Chief Architect of Auroville and member of Club of Budapest |
| 6. | Mr. Dibyasingh Deb | Maharaja of Puri |
| 7. | Mrs. Jyoti Madhok | Long-time associate of Auroville |
| 8. | Mr. D.P. Singh, IAS | (Ex-officio), Director (UNESCO Unit), Ministry of Human Resource Development |
| 9. | Mr. Sanjay Narayan, IAS | (Ex-officio), Joint Secretary & Financial Advisor to Ministry of Human Resource Development |

Appendix II

Role & Responsibilities of Different Working Groups in Auroville

Development Council

A broad-based co-ordination and planning group, the Development Council was established to ensure that the development of Auroville is in accordance with the ideals set forth by the Mother.

To facilitate this, the Group:

- Defines collective priorities for development.
- Defines and select surveys required and projects for study.
- Implements the Master Plan approved by the Residents Assembly.
- Monitors current and future Auroville Development Scheme grants, and allocates unspecified funds for development.
- Develops the strategy and sets priorities for purchase, sale and lease of land.
- Assesses and gives approval for all building applications on Auroville land.

Economy Group

The Economy Group monitors Auroville's internal economy and acts as a liaison body between the community and its commercial units. Particular attention is given to the Central Fund and its disbursements each month. In specific terms, the Group grants loans; keeps close contact with the Auroville services, the Auroville Board of Commerce, the productive units and collective budget holders; raises funds for the overall maintenance needs of the community; and studies the AV economy to find ways of moving it towards a true collective economy.

Entry Group

The Entry Group processes all applications to join Auroville, oversees the entry procedures, and decides on the use of the Repatriation Fund.

Executive Council

The Executive Council deals with matters affecting the internal functioning of the community. This mostly entails:

- Policy co-ordination
- Facilitating communication by way of seminars, meetings and referendums.
- Acting as clearinghouse for problems arising within the community.

Funds and Assets Management Committee (FAMC)

The FAMC is one of the official committees of the Auroville Foundation, specifically required to advise the Governing Board on the following:

- The utilisation of the funds and management of assets.
- Taxes and audits.
- The sale, acquisition and utilisation of immovable assets.

The FAMC consists of representatives of the following working groups: ABC core group, AV Fund, AV Maintenance Fund, CSR, Development Group, Economy Group, Entry Group, Executive Committee, Farms & Forest Groups, Financial Service, Housing Service, Land and Estate Management, Matrimandir, SAIER administration and the Working Committee. As members of the Governing Board residing in Auroville, the Secretary and the Finance Officer are also members.

Land and Estate Management (LEM)

Auroville's land management office, is located at Bharat Nivas. LEM is the centralised facility where maps and records can be consulted, land purchases and allocation discussed etc. Essentially, LEM has 3 main functions:

- Management of all Auroville lands and fields not looked after by or forming part of an AV community.
- Land surveys (where the boundary between AV and private land is not clear), administration, maintenance of records,
- Payment of land taxes, liaison with local authorities on land matters, and court cases where land ownership is disputed.
- Negotiation and registration of new land purchases.

Project Co-ordination Group

Co-ordinates all grant proposals for AV Projects to ensure maximum effectiveness and non-duplication of approach to potential donors. In support of this, a project consultancy-cum-writing service called "Abundance" is provided.

The Group is Auroville's officially recognised channel to Auroville International Centres, the Foundation for World Education and Stichting de Zaaier on all fund raising matters, and is the only body authorised to endorse proposals for fund raising outside Auroville.

Working Committee

An official Auroville working group specifically responsible, under the Auroville Foundation Act, for assisting the Residents Assembly and liaising with the Governing Board of the Auroville Foundation and the outside. The Committee deals with many of the major issues that arise affecting Auroville vis-a-vis the outside world, while Auroville internal matters are mostly looked after by the Executive Council. Members usually hold office for a period of 2 years, but many serve longer.

Auroville Village Action Group

AVAG works in 35 local villages, directly benefitting 2,000 people and indirectly 30,000+ through its team of 20 development workers. The main aim of AVAG is to make the local people aware of their social, cultural and environmental conditions while bringing general benefit to them. Areas of specific action, involvement and/or achievement include:

- Supporting Isaiambalam Research School, Kindergarten and Crèche; a Life Education Centre in Kottakarai offering education and vocational training for young school-drop-out girls; and Night Schools in 23 villages plus crèches in schools by introducing innovative and participatory educational methods.
- Supporting 29 women's groups that meet regularly, initiate and implement community projects, operate savings clubs, and support each other in crisis.
- Promoting environmental awareness, health awareness and community hygiene in collaboration with the Auroville Health Centre and other Auroville groups.
- Giving small grants for community service initiatives on a cost-sharing basis with village groups.

Farm Group

The Farm Group meets regularly to coordinate Auroville's farming activities and share information with a view to increasing Auroville's self-sufficiency in food production. Along with the Forest Group (see separate note) the Group is represented on the Green Group, and also sends representatives to other policy-making meetings in Auroville.

Financial Service/Auroville Maintenance Fund

The maintenance Fund, which incorporates the Central Fund (see separate Note), is Auroville's major fund concerned with internally generated and circulating money, as opposed to contributions from outside, which are handled by Auroville Fund.

The administrative aim is to collect monthly maintenance contributions for Aurovilians from Auroville units, individual contributions and guest contributions, and handle the distribution, mainly through the Central Fund. The Fund is computerized and linked with Pour Tous, so can arrange payment for gas bottles, food, purchases from commercial unit, and water service, electricity, telephone, milk and bakery bills.

The Financial Service/AMS can also exchange foreign currency, travellers cheques and personal cheques.

Forest Group

A group actively involved in the planting and maintenance of Auroville's forested areas, particularly the protective Green Belt around the township.

Green Group

The Green Group, consisting of representatives from the Farm Group and Forest Group, reviews issues pertaining to the development of the Green Belt, and advises on them according to environment protection principles while trying to facilitate the overall growth of Auroville. Though the primary concern at present is watershed management and reforestation, integrated farming practices are also a priority. The Group interacts with the Development Council as required.

Appendix III

Auroville Foundation – Consolidated Income & Expenditure For the Year Ended 31.09.1999					
Research / Service Units					
1997-98	Expenditure	1989-99	1997-98	Income	1998-99
114,449.74	To Auromitra	139,083.54	491,518.84	By Auroville services	—
7,008,796.83	Auroville Fund			Auroville Fund	14,247,273.88
8,326,438.68	Centre for Scientific Research	3,012,002.47			
722,742.29	Sri Aurobindo International Institute of Educational Research	704,639.99	15,837,902.55	By Excess of Expenditure over Income	—
156,993.85	Sri Aurobindo International Institute of Educational Research (GOI)	263,405.30			
	Excess of Income over Expenditure	10,128,142.58			
16,329,421.39		14,247,273.88	16,329,421.39		13,247,273.88

Auroville Foundation – Consolidated Income & Expenditure For the Year Ended 31.09.1999

Commercial Units					
1997-98	Expenditure	1989-99	1997-98	Income	1998-99
—	To Auroville Export Trust	3,307.21	172,340.95	To Auroville Export Trust	—
—	To Aurore Trust	100,098.41	13,940,742.39	Aravinda Trust	19,340,663.88
3,877,818.38	Aurosarjan Trust	2,730,344.12	226,282.43	Altecs Trust	437,397.51
—	Auro Service D' Av 1993 Trust	649,362.47	1,170,276.01	Ankur Trust	393,730.55
1,701,810.87	To ABC Trust	937,638.37	2,445,777.07	Artisana Trust	3,764,016.58
2,160,014.70	ADPS Trust	3,387,498.47	2,078,667.79	Auromics Trust	495,003.85
25,486.08	Centre for Scientific Research	—	2,065,415.50	Auromode Trust	660,002.61
570,617.77	Filaure Trust	—	161,120.92	Auroservice d' AV 1993 Trust	—
31,405.51	New Engineering Trust	196,269.76	—	Filaure Trust	421,122.35
			135,316.15	Kalki Trust	282,054.57
14,317,943.99	To Net Profit	18,184,745.03	289,158.09	Toujours Mieux Trust	392,271.94
22,685,097.30		26,186,263.84	22,685,097.30		26,186,263.84

Appendix IV

Securing Land for Orderly & Planned Development

The designated Auroville Township area covers 19.63 sq. km, i.e. 1963 ha. as on 1st August 2000 Auroville has under its ownership 778 ha. of land in the designated township area, while about 980 ha. still have to be secured for Auroville's proper and complete development into a township for 50,000 people. All the lands so far have been acquired by negotiated purchase from land owners.

All over India, the acquisition of land for development purposes by compulsory acquisition under the Land Acquisition Act has become more and more difficult. Acquiring land by negotiation is also becoming increasingly difficult and expensive because of speculative tendencies, particularly by real estate developers. In the case of Auroville, the situation is much more critical. The development of Auroville has transformed a barren inhabitable plain into a verdant area. This has attracted speculative developers from the neighbouring urban areas.

One of the principal objectives of the Auroville Master Plan (Perspective: 2025) is to ensure that planned developments are not overtaken by haphazard and deleterious development by speculators for personal gain. It will be observed from zoning regulations that farming and research for increasing productivity in the agricultural and farm sectors (especially to apply to other parts of the State) will be one of the main uses of lands that surround the inner part of the Auroville Township. In the context of the above situation, it is proposed to employ different options for securing the land for the development of Auroville as planned.

1. Land Exchange

Auroville has presently under its ownership extents of land outside the 20 square kilometres area. Some of these lands could be offered in exchange for unutilised lands that are needed to establish research and field stations for agricultural and farm development in the Green Belt.

2. Land for employment

There are several pockets of land owned by villagers, which are not of a viable size for supporting economic production. Further, a large number of persons have a right on the land, which makes it difficult to put it to useful purposes. In such cases, Auroville could offer employment in farming, forestry and other Auroville activities, including vocational training, in return for the land that will be offered at a negotiable price.

3. Leasing of land

As an alternative to (2), Auroville proposes to make lease agreements with landowners. These agreements would stipulate that Auroville has the first option of purchase against payment of a yearly amount to the landowner. The agreement would also stipulate restrictions on land use and prevent sale to third parties.

4. Land pooling and sharing for joint development

Auroville proposes this approach as a method that will benefit both the landowner and Auroville. Auroville will use its resources and expertise to generate crops and other produce on the land, which will generate much higher returns after setting apart amounts for the inputs of Auroville resources. The villager will continue to own and work on the land.

5. Purchase of land

Auroville's policy has always been to secure the land by voluntary sale via negotiation with the landowners, with no compulsion or coercion, keeping in mind their needs and long term welfare. This method will continue to be pursued for lands to be acquired for Auroville's development.

6. Acquisition under the Land Acquisition Act

The Auroville Foundation is a statutory body, created by an Act of Parliament to further the development of Auroville in accordance with its original Charter, given by The Mother. Therefore, any acquisition of land towards the development of Auroville would come under the definition of public purpose under the Land Acquisition Act.

There are certain important developments, such as road widening and construction of utility structures, which cannot be normally secured by the options mentioned above. Auroville proposes to approach the Tamil Nadu State Government in order to obtain such lands through the Land Acquisition Act.

Another instance is where real estate developers propose to dispossess the landowner of his land for his own monetary benefits. In such cases also, Auroville will propose acquisition of these lands, unless one of the above mentioned options can be used.

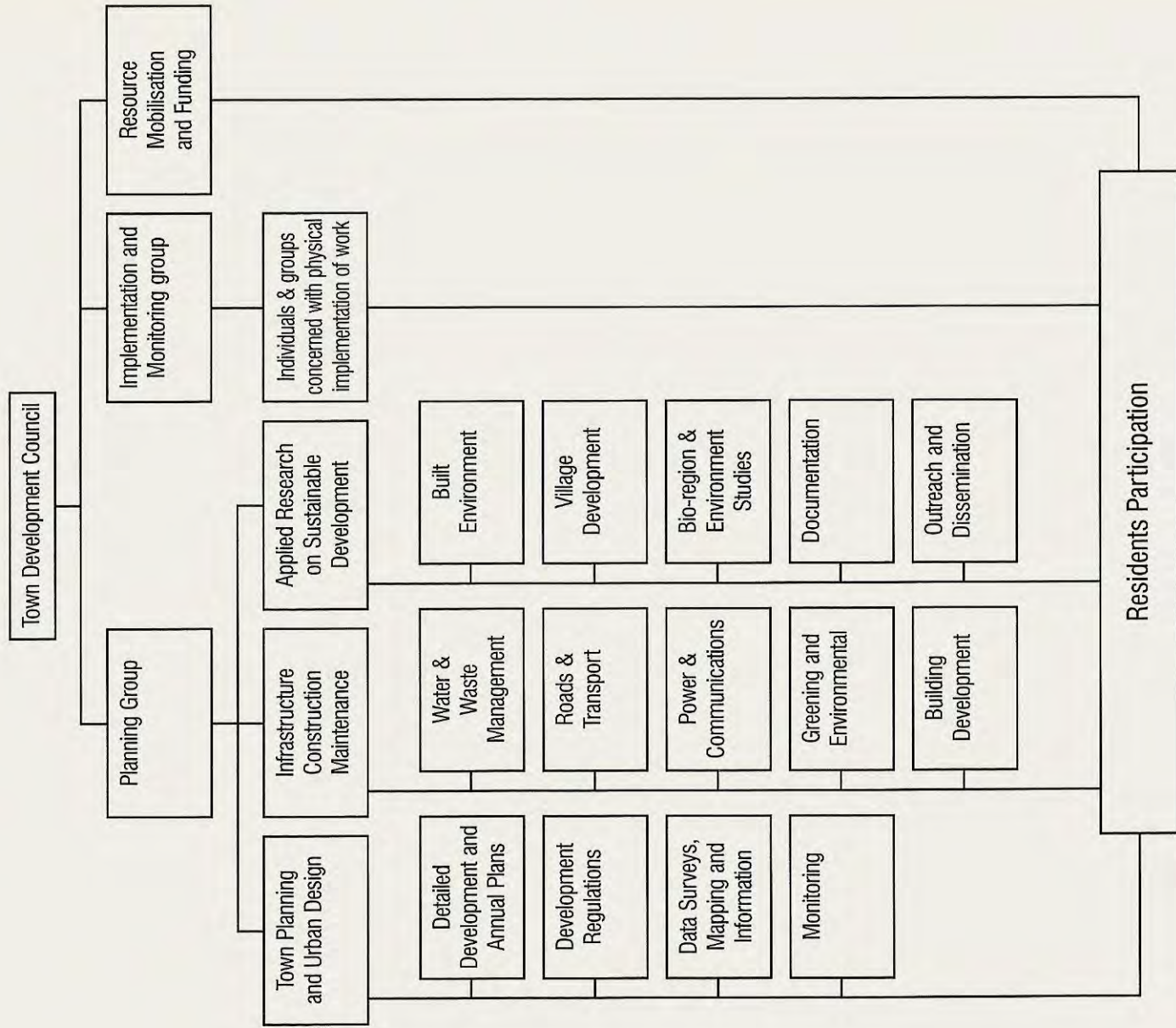
7. Zoning Regulations

Most of the options listed above will take time and effort. There are bound to be instances where a single unplanned development may jeopardise not only future developments, but even those that have been carried out earlier. Hence, it becomes imperative that all the lands that are required for the development of Auroville are covered in such a way that no person would contravene the zoning regulations made in the Master Plan. For this purpose, necessary mechanisms have to be approved by the Government of India along with the State Government. Such mechanisms would provide a most important and decisive tool for safeguarding the lands needed for Auroville's development from speculative, damaging and environmentally unsound development.

8. Conclusion

It is envisaged to secure an annual average of 100 hectares per year over the next 10 years by employing these various mechanisms.

Appendix V
Organisational Structure for Master Plan



Appendix VI

Parameters for Project Cost Estimation

1. First Phase 1st Stage (2000-2006)Additional 5000 population
2. Land cost 1st Stage.....Rs. 8 lakh/ha.
3. Land cost 2nd StageRs. 10 lakh/ha.
4. Construction cost:
 - Residential.....Rs. 8,000/sq.mt.
 - IndustrialRs. 8,000/sq.mt.
 - Crown.....Rs. 10,000/sq.mt.
 - International/Cultural.....Rs. 15,000/sq.mt.
5. Off-site infrastructure.....Rs. 6 lakh/ha.
(including road, power, water, sewage, communication)
6. Land development in zonesAbout 10% of zone area for 1st stage
7. Residential space30 sq.mt./person
8. Social infrastructure in Residential zone per 1000 sqm of built up area25 sqm
9. Biomass energy generation for ½ MegawattRs. 2 crores
(assuming 6000 hours of operation)
10. Security lighting for 25 km of road, at 10 per km and Rs. 30,000 per unit.
11. Township Access RoadRs. 10 lakh/km.



THE INFORMATION HAND BOOK UNDER RIGHT TO INFORMATION ACT

Master Plans (MPs)

Master plan is prepared for town and cities giving emphasize for zoning regulation for judicious use of urban land. Thus a Master Plan is a key development plan to provide land use allotment for residential, commercial, industrial, public and semi-public, traffic and transportation, parks, play fields and open spaces, etc., taking into consideration the existing land uses. The plans while suggesting for broader land use restrictions, will also identify the problem areas in traffic and transport, location for education, recreation site etc., and

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Department of Town and Country Planning
Government of Tamil Nadu

propose for provision of infrastructure facilities based on the projected population for that area. Programmes are drawn and funding agencies are identified to take up such projects. 114 Local Planning Areas (108 Local Planning Areas and 6 New Town Development Areas) have been declared and master plans and new town development plans have been prepared for these urban areas.

This department has so far prepared Master Plan/New Town Development Plan for 117 towns. Master Plan has to be prepared for the newly upgraded 50 Municipalities.

THE INFORMATION HAND BOOK
UNDER RIGHT TO INFORMATION ACT
Detailed Development Plans (DDPs)

Detailed Development Plans are prepared in conformity with Master Plan proposals, prepared for smaller areas within the urban area. These are the action plans where the development projects and programmes are envisaged. It is a micro-level plan with detailed road network in which Master Plan is translated for development of specific area in the town which exhibits faster growth. So far 1625 detailed development plans have been notified by this department for major urban centres of the

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Department of Town and Country Planning
Government of Tamil Nadu

State and are at various stages of preparation. The Detailed Development Plans are also reviewed periodically based on the trend of development



भारत का राजपत्र

The Gazette of India

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No. 24]

NEW DELHI, SATURDAY, JUNE 11—JUNE 17, 2011 (JYAISTHA 21, 1933)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके
(Separate paging is given to this Part in order that it may be filed as a separate compilation)

भाग III—खण्ड 4

[PART III—SECTION 4]

[सांविधिक निकायों द्वारा जारी की गई विविध अधिसूचनाएं जिसमें कि आदेश, विज्ञापन और सूचनाएं सम्मिलित हैं]
[Miscellaneous Notifications including Notifications, Orders, Advertisements and Notices issued by
Statutory Bodies]

कर्मचारी राज्य बीमा निगम

नई दिल्ली, दिनांक 23 मई 2011

सं. ए-12(11)-1/2006-स्था-1--कर्मचारी राज्य बीमा अधिनियम, 1948 (1948 का 34) की धारा 97 की उप धारा (2) के खण्ड (xxi) और उप धारा (2क) के साथ पठित उक्त धारा की उप धारा (1) और धारा 17 की उप धारा (2) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए कर्मचारी राज्य बीमा निगम, केन्द्रीय सरकार के अनुमोदन से, एतद्वारा कर्मचारी राज्य बीमा निगम में अधीक्षक इंजीनियर (सिविल) पद पर भर्ती की प्रक्रिया को विनियमित करने हेतु निम्नलिखित विनियम बनाता है, अर्थात् :-

1. संक्षिप्त नाम और प्रारम्भ--(1) ये विनियम कर्मचारी राज्य बीमा निगम अधीक्षक इंजीनियर (सिविल) भर्ती विनियम, 2011 कहे जाएंगे।
(2) ये शासकीय राजपत्र में इनके प्रकाशन की तारीख से लागू होंगे।
2. पदों की संख्या, वर्गीकरण एवं वेतनमान--पदों की संख्या, उनका वर्गीकरण और उनसे सम्बद्ध वेतनमान इन विनियमों के साथ संलग्न अनुसूची के कॉलम (2) से (4) में यथा विनिर्दिष्ट होंगे।
3. भर्ती की पद्धति, आयु सीमा, अर्हताएं आदि--भर्ती की पद्धति, आयु सीमा, अर्हताएं और उनसे संबंधित अन्य मामले उक्त अनुसूची के कॉलम (5) से (14) में यथा विनिर्दिष्ट होंगे।
4. निरहता--ऐसा कोई व्यक्ति,--
(क) जिसने ऐसे व्यक्ति से विवाह किया है या विवाह करने का करार किया है जिसका विवाहिती जीवित है; अथवा

(ख) जिसने अपने विवाहिती को जीवित रहते हुए किसी व्यक्ति से विवाह किया है अथवा विवाह करने का करार किया है, उक्त पद पर नियुक्ति का पात्र नहीं होगा।

परन्तु यदि कर्मचारी राज्य बीमा निगम के महानिदेशक इस बात से संतुष्ट हैं कि ऐसा विवाह ऐसे व्यक्ति अथवा विवाह की दूसरी पार्टी पर लागू वैयक्तिक कानून के अन्तर्गत अनुमेष्य है अथवा ऐसा करने के अन्य आधार भी हैं तो वे किसी व्यक्ति को इन विनियमों से छूट दे सकते हैं।

5. ढील देने की शक्ति--जहां केन्द्रीय सरकार की राय में ऐसा करना आवश्यक अथवा कालोचित है तो तत्संबंधी कारणों को लेखबद्ध करके तथा संघ लोक सेवा आयोग के परामर्श से किसी श्रेणी अथवा व्यक्तियों के वर्ग के संबंध में इन विनियमों के किसी भी उपबंध में आदेश द्वारा ढील दे सकते हैं।
6. अवशिष्ट मामले--इन विनियमों के उपबंधों के अधीन निगम में पदों की तदनुसूची श्रेणी पर लागू कर्मचारी राज्य बीमा निगम (भर्ती) विनियम, 1965 में उल्लिखित अन्य सभी विनियम और अनुदेश इन विनियमों के साथ संलग्न अनुसूची में उल्लिखित पद पर लागू होंगे।
7. अपवाद--इन विनियमों की कोई बात ऐसे आरक्षणों और अन्य रियायतों पर प्रभाव नहीं डालेगी जिनका केन्द्रीय सरकार द्वारा इस संबंध में समय-समय पर जारी किए गए आदेशों के अनुरूप अनुसूचित जाति, अनुसूचित जनजाति, अन्य पिछड़ा वर्ग तथा व्यक्तियों के अन्य वर्गों के लिए संबंध करना अपेक्षित है।

MINISTRY OF HUMAN RESOURCE DEVELOPMENT
(DEPARTMENT OF HIGHER EDUCATION)

AUROVILLE FOUNDATION, AUROVILLE-605101

STANDING ORDER NO. 6/2011 DATED 1st MAY 2011
CONSTITUTION OF AUROVILLE TOWN
DEVELOPMENT COUNCIL

Whereas the Mother had envisaged Auroville as a universal township dedicated to human unity and international understanding and as further described by her in "A Dream" (1954), the Auroville Charter (1968), the message "To be a True Aurovilian" (1970) and the Mother's numerous other messages and writings on Auroville.

Whereas Section 16(1) read together with Section 17(c) of the Auroville Foundation Act, 1988 and sub section 5(1)(b) of the Auroville Foundation Rules, 1997 empowers the Governing Board to constitute committees for efficient discharge of its duties and performance of its functions, and also prepare, in consultation with the Residents' Assembly, the Master Plan for the international cultural township of Auroville (hereinafter referred to as "the township") and ensure its development so planned;

Whereas the Governing Board, in terms of Section 17(e), *ibid.*, approved the Auroville Universal Township Master Plan (Perspective 2025), hereinafter referred to as "The Master Plan", prepared by the Residents' Assembly of Auroville;

Whereas the Master Plan was approved by the Central Government, vide Government of India, Ministry of Human Resource Development (Department of Higher Education) letter No. F. 27-3/2000-UU dated 12 April 2001, and was notified by Auroville Foundation, with the approval of the Central Government, in the Gazette of India (Part III) on 16th August 2010; and

Whereas the Master Plan prescribes the "Town Development Council" as the body for implementing the Master Plan with an organisational structure as in Appendix-V of the Master Plan;

Now, therefore, the Governing Board, in terms of the provisions of the Master Plan, constitutes the "Town Development Council" (hereinafter referred to as "the Council") in consultation with the Residents' Assembly through the Working Committee, for the purpose of implementation of the Master Plan which includes but is not limited to (1) planning, developing and building of the township, (2) socio-economic planning and development; (3) implementing and monitoring of development plans; and (4) mobilizing resources and funding the planning and development of the Township, subject to the following provisions :

1. Council Membership :

The Council shall consist of a maximum of 15 members nominated by the Residents' Assembly through the Working Committee from amongst the Residents' of Auroville, whose

names are entered in the Register of Residents' maintained in terms of Section 18(2) of the Auroville Foundation Act 1988 and approved and notified by the Governing Board and shall include members representing functional areas and nominated members as given below :

Functional Areas (13 Members) :

- Town Planning
- Urban Design
- Physical Infrastructure
- Social Infrastructure
- Economic Development
- Applied Research on Sustainable Development
- Resource Mobilisation
- Implementation and Monitoring
- Greenbelt, Green Zones and Parks
- Communication

Nominated Members (2 Members) :

- Nominee of the Governing Board
- Nominee of the Working Committee

2. Office Bearers :

The Council will have three office-bearers namely one Chairperson, one Member-Secretary and one Member in charge of Finance & Accounts. The Governing Board nominates Shri Balakrishna Doshi, be their nominee in the Town Development Council. The Council shall elect these three office-bearers from amongst themselves and decide on the levels of delegated authority to these office bearers.

3. Term of Office :

- (a) The term of office of a member shall be 4 years from the date of notification by the Governing Board of his/her nomination by Working Committee;
- (b) Six months before the expiry of each 4 year term, the new members of the Council will be nominated and will commence an induction and transition process with the then existing Council members to ensure a smooth transition;
- (c) The Governing Board may, in consultation with the Working Committee, may re-appoint functional area members to the new succeeding Council, so as to ensure continuity of work. The re-appointment of Council members will be subject to the eligibility criterion as per clause 3(d) below.
- (d) A member shall be eligible for re-nomination for a maximum of one term in succession and for subsequent nomination on the same terms after a lapse of 2 terms from the last one; and for

subsequent nomination on the same terms after a lapse of 2 terms from the last one; and for subsequent nomination on the same terms after a lapse of 2 terms from the last one.

4. Cessation of Membership :

A member shall cease to be on the Council : (1) if he/she is continuously absent from Council work or Auroville for more than six months; (2) if he/she resigns in writing and the resignation, recommended by the Council, is accepted by the Governing Board; (3) if the Governing Board, on the recommendations of the Council, for good and sufficient reasons to be recorded in writing, removes a members;

5. Nominations and Vacancies :

Members of the Council will be appointed by the Governing Board in consultation with the Residents Assembly through the Working Committee. If a casual vacancy is caused for any reason, the Governing Board, in consultation with the Working Committee, may appoint a member for the vacancy for the remaining period of the term. For the appointment of members of the Council, the Governing Board will issue suitable Office Orders from time to time. Such Office Orders will contain the names of the members, their term and the functional areas of responsibility.

6. Functions and Responsibilities :

The Governing Board herewith empowers the Council, being the Prescribed Authority as mentioned in the Master Plan, with the following functions and responsibilities :

- (a) Ensure that the township is planned, developed and built generally according to the "Galaxy Concept" approved by the Mother and the Master Plan to manifest the Mother's vision of Auroville within a time frame;
- (b) Prepare and approve Zonal Plans, Local Area Plans and 5 year Detailed Development Plans for building the Township in a time bound manner;
- (c) Review and update the Master Plan every 15 years with the first such review to take place in 2025;
- (d) Prepare and approve Development Plan Regulations (Building By-Laws) as well as give building Permissions and Completion Certificates;
- (e) Prepare and approve budgets, estimates, planning schedules, work plans and work completion schedules;
- (f) Assist in raising or raise funds for planning, developing and building the Township including the consolidation of land required for the purpose. The funds so raised shall be deposited in the Auroville Unity Fund and disbursed to the Council for the realisation of approved development plans;
- (g) Secure the services of town planners, urban designers, engineers, architects, contractors,

surveyors, consultants, legal advisors, and such other experts and professionals from within and outside Auroville as may be necessary from time to time and on such terms and conditions as may be decided by the Council;

- (h) Prepare and implement communication and consultation processes that encourage an active, constructive and participatory involvement of Auroville residents in the implementation of the Master Plan;
- (i) Constitute functional teams, working groups, project teams and other resource groups as may be necessary from time to time on such terms and conditions as may be decided by the Council;
- (j) Secure, where necessary, the required recognition or endorsement from the appropriate central, state, local or district government authorities for the implementation of the Master Plan in consultation and cooperation with the Secretary, Auroville Foundation;
- (k) Prepare rules and regulations for ensuring enforcement of the Master Plan with the approval of the Governing Board.

7. Advisory Committee :

The Governing Board will constitute the TDC Advisory Group (TAG) comprising upto 7 members including the Director, Town and Country Planning, Government of Tamil Nadu, to advise the Governing board and the Council on matters relating to the Master Plan, including, but not limited to, the preparation of Detailed Development Plans and the monitoring and reviewing of planning and development progress.

8. Accountability and Reporting :

- (a) The Council shall be accountable to the Governing Board, through the Working Committee, and shall submit to it a faithful and true account of its activities, including income and expenditure as and when required by the Governing Board.
- (b) The Council shall also submit a faithful and true account of its activities to the Residents' Assembly, through the Working Committee, as decided from time to time.
- (c) The Council shall publish an annual report on the progress in implementing the Master Plan.

9. Internal Management :

The Council shall determine, with the approval of the Governing Board through the Working Committee, its internal working procedures in all respects not inconsistent with the Auroville Foundation Act, 1988, the Auroville Foundation Rules, 1997 and the provisions of this Notification. The

Council shall provide a copy of its internal management and financial processes manual to the Working Committee and the Governing Board for information.

10. L'avenir d' Auroville

Since the name "L'avenir d' Auroville" was given by the Mother for the Township Planning, developing and building the organisation; the Council shall retain it and may use the expression "Auroville Town Development Council-L'avenir d'Auroville" in its internal communications.

From the date of constitution of the Council, the committee known by the name of "L'avenir d'Auroville" and constituted by the Governing Board by its Standing Order

No. 1/2008 dated 11 March 2008, and the connected Office Orders, shall cease to exist and function, and its roles and responsibilities shall be taken over by the Council.

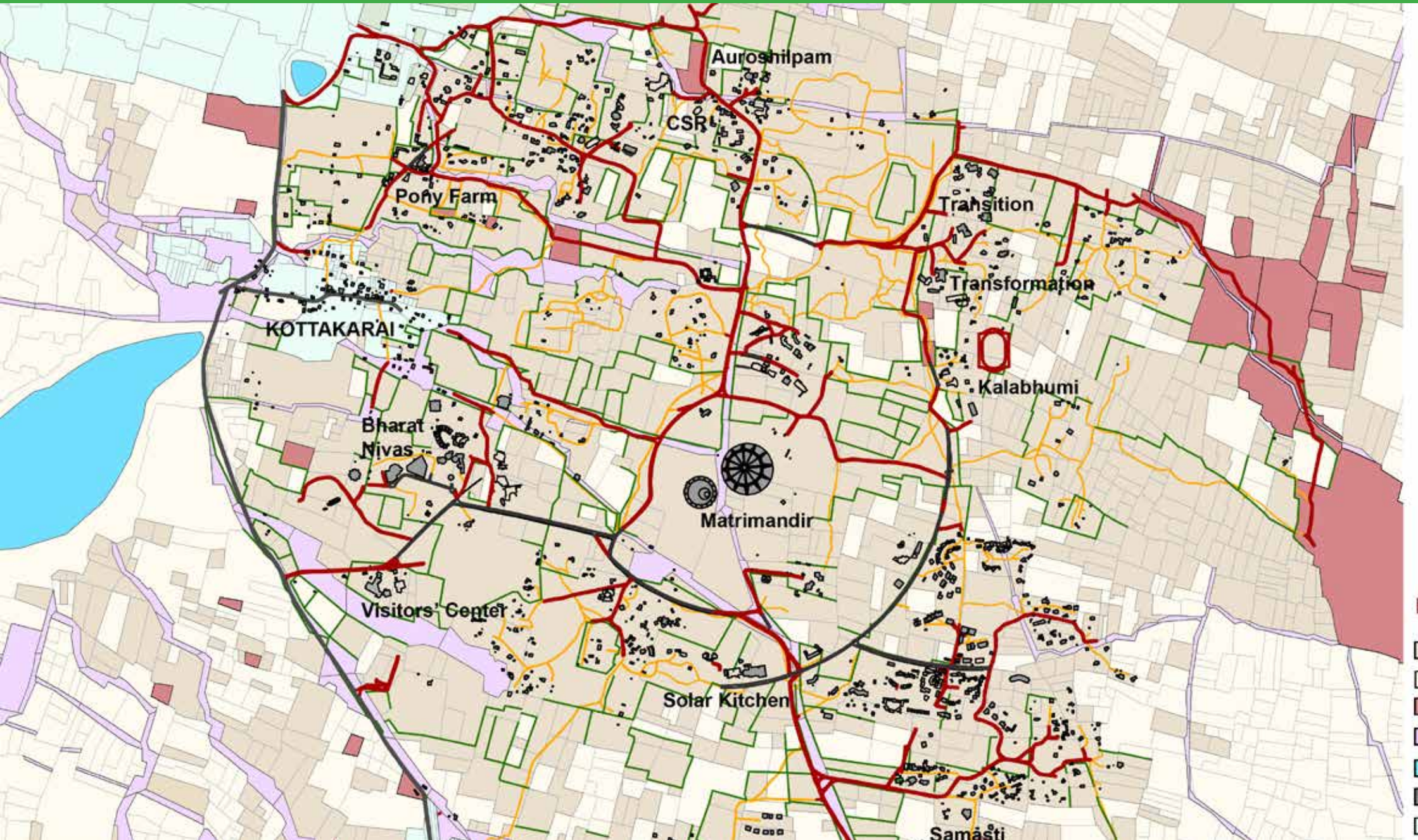
11. Amendments to the Notification

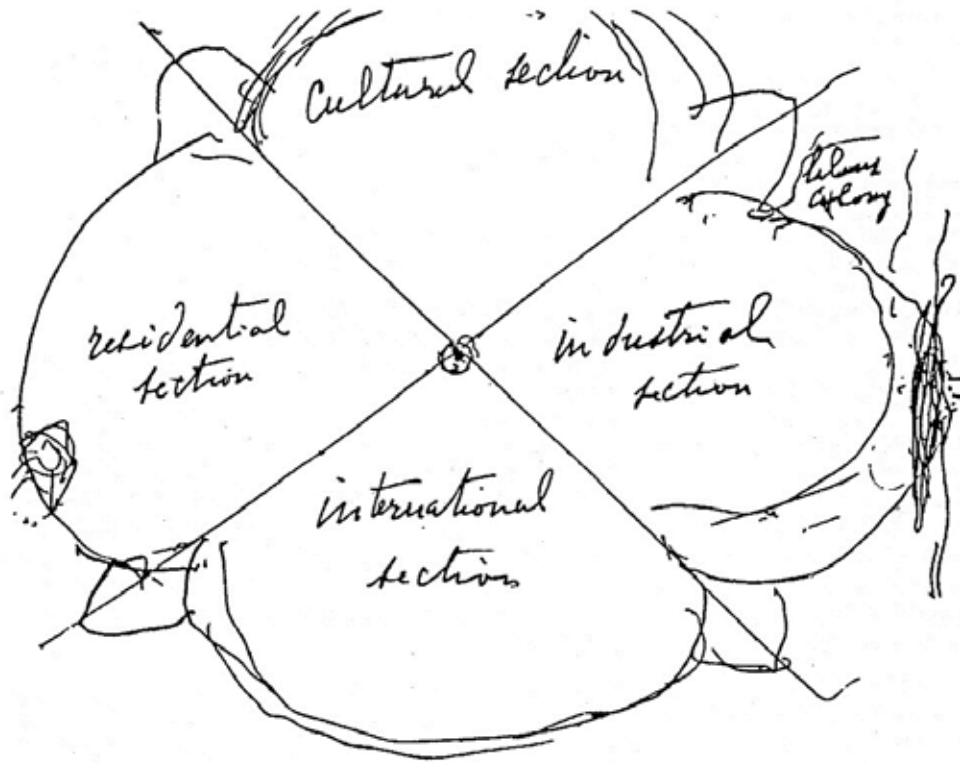
The Governing Board, in consultation with the Working Committee, may amend, from time to time, any or all of the provisions of this Standing Order.

12. This Standing Order is issued with the approval of Chairman, Auroville Foundation and shall come into force with immediate effect.

M. RAMASWAMY
Secy.

Auroville city area - Land Use and Land Use Proposal
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April - May 2014





Hand drawn sketch of the Mother of her city as a four petal flower - 1965

INTRODUCTION TO THE CONCEPT OF 'AUROVILLE'

The 'Mother' in June 1965* described in detail her idea for the city of Auroville, a sketch of the conceptual layout of the city was made by her (figure above) to accompany this verbal narrative.

*For the full text please refer to-1965, June 23rd: Excerpt from a conversation with Satprem:
Taped conversation- Original language: French- Sources: Mother's Agenda, pp. 139-147; MoA, p. 57, CWM, XIII, p. 257, AMW, p. 37*

Auroville wants to be a universal town where men and women of all countries are able to live in peace and progressive harmony, above all creeds, all politics and all nationalities.

The purpose of Auroville is to realise human unity.

8-9-65.

Auroville wants to be a universal town where men and women of all countries are able to live in peace and progressive harmony. Above all creeds, all politics and all nationalities.

The purpose of Auroville is to realise human unity.

Charter of Auroville

- 1. Auroville belongs to nobody in particular. Auroville belongs to humanity as a whole. But to live in Auroville, one must be a willing servitor of the Divine Consciousness.**
- 2. Auroville will be the place of an unending education, of constant progress, and a youth that never ages.**
- 3. Auroville wants to be the bridge between the past and the future. Taking advantage of all discoveries from without and from within, Auroville will boldly spring towards future realisations.**
- 4. Auroville will be a site of material and spiritual researches for a living embodiment of an actual Human Unity.**





AUROVILLE LOCATION AND CONTEXT

Auroville International Township is located 12 km north of Puducherry and 160 km south of Chennai, in the Villupuram district, Tamil Nadu. The geographical centre of the city is 54 metres above mean sea level.

The climate is tropical, hot humid with two monsoons a year: the south-west monsoon from June – August and the north-east monsoon from October – December. The average number of rainy days/year varies from 50-70 days, with an average temperature range of 18° C to 42° C. The relative humidity varies from 50-80%, with average wind speeds of 3-5 m/sec. The area is prone to cyclonic storms with wind speeds of up to 55-60 m/sec. The predominant wind directions are the sea breeze from the east in the afternoon and evenings, and the land breeze from the west from midnight to midday.

The soil varies between the coastal watershed with ferralitic soil with high percolation capacity and the inland watershed with clayey soils. All water requirements in this area are either met from groundwater (wells ranging from 20–300 m depth) or surface water collection ponds for washing, cattle and irrigation. In Auroville, the population is completely dependent on groundwater for all its potable and non-potable needs.

The local population in the five villages that are within, or in the proximity of the township area, are composed of several communities including Naidus, Idayars, Vanniars, Paraiyas and Minavars (refer to Dr. Vishwa's report, 10th May 1968). In the last 46 years, since Auroville's inception, these communities have shifted from subsistence/rainfed agriculture to cash crops, small-scale enterprises that serve the growing tourist market and employment within Auroville in the manufacturing/service/domestic sectors. The politics of the area tend to be segmented on community/caste levels, with loyalty towards one of the three state-level political parties linked with local party bases. The predominant crops grown in the area as per the progress report published on 1st Nov. 1968 were millets, peanuts and perennial grasses for cattle. Today there is a marked shift to cash crops as direct food needs are met from the market.

AUROVILLE NOW....

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Auroville was inaugurated on 28th Feb. 1968, and presently (Jan. 2014) there is a resident population of 2,500+ persons from approximately 45+ countries of the world with 20-22% under the age of 18. The land ownership is about 3,400+ acres with 2/3 within the township limits, including the green belt, and 1/3 held in fragmented parcels along the coast and inland.

From a barren plateau in 1968, one of the most successful projects implemented by Auroville is the surface water management to control erosion of soil and recharge the aquifer, and the planting of forests to improve soil fertility. Other areas of innovation and change initiated by Auroville are in the fields of appropriate building technologies (earth construction), renewable energy (solar/wind/biomass) and sustainable practices in natural resource and waste management.

As post-socialist India aspires to reach double digit economic growth, Auroville is impacted by land speculation from a growing upper middle class with disposable incomes, who are attracted by the quality of its natural environment. The growth rate of the tourism and manufacturing sectors in Puducherry has been one of the highest in the country. The energy demand in the region outstrips the capacity; the exploitation of the groundwater resources is unmonitored in spite of the saline intrusion in and around the coastline. The commercial strip development along both the East Coast Road and State Highway 66, with suburban developments north and south of Puducherry on agricultural lands with poor sanitation and waste disposal, is clogging the natural flow channels, silting up the surface water holding tanks and/or polluting them with toxins that seep into the groundwater sources.

The rural population in the area aspires to benefit from the development boom, but the opportunities to fulfil these aspirations are not equitable, leading to social tensions, sporadic violence and vulnerability to political exploitation causing power struggles between the elected and traditional leadership. The district and state initiated development programmes are not embedded in a regional plan with integrated developmental priorities. The panchayat and block level programmes are impacted and influenced by political lobbies and special interest groups.

Auroville is impacted by these conflicts and is vulnerable to collateral damage from the growing factionalism within the resident population in Auroville of local extraction, where impartiality is severely compromised. The socio-political situation that has developed in the last decade clearly indicates a need for an immediate strategy to secure the land in the city area, and a simultaneous drive to arrive at a consensus on the developmental methodology and priorities to ensure the long-term sustainability of the project. Establishing a policy of environmentally sensitive land use for Auroville and the region is imperative to overcome two main challenges: saline water intrusion and food security due to the loss of agricultural lands to development. The failure of either could prevent the development of Auroville into a township with a resident population of 50,000.



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 search

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THE GALAXY MODEL AS PREPARED AND PRESENTED IN 1967 - 68

Between 1965 and 1967, the chief architect of the project of Auroville, Roger Anger, sequentially produced four concepts for the city that the Mother has envisioned; nebula, rectilinear, macro structures modelled on the 'Yin-Yang', and finally, what is known as 'the galaxy' among the resident population.

A model of this concept was presented to the Mother for her blessings. The galaxy proposal was built into a model that was to scale in terms of the horizontal plane or x-axis, but in order to create a visual/tactile experience, the built volumes were exaggerated on the y-axis; tweaked to 3-4 times the actual scale, providing a visual appeal that a real-scale model could not have captured. This animation, with visual enhancement, uses cultural-spiritual-mental imprinting to connect through association, in the minds of most people, the celestial imagery of the skies, stars and galaxies with vastness and movement, communicating a sense of the 'future' and 'spiritual' at the same time. Thus, this model as a concept for the city was a success in visual branding and promotion.

After the inception of the project in Feb. 1968, there were several attempts to derive a working master plan from the galaxy concept that would allow for the incremental development of the city as the population and activities grew. However, due to a combination of factors like lack of secure capital; inability to consolidate the land for the township; slow growth rate of the resident population; change in the world view of what embodies the essence of the 'future' from visually exciting to environmentally responsible; and finally, the change in the socio-political situation of India from socialism to a free market democracy, has changed the background scenario.

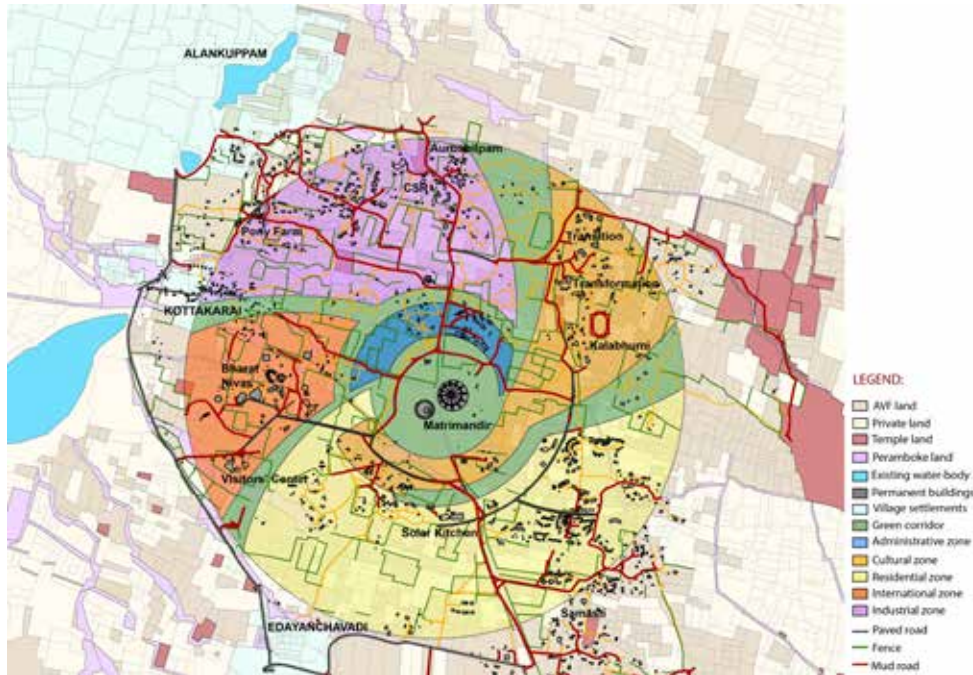


Figure - Macro Zoning as per the Master Plan 2025

In the years 1999-2000, Auroville produced a master plan document to invite the Government of India to recognize the project's uniqueness and value, 'Auroville Universal Township – master plan 2025'. This was presented to the Ministry of Urban Development. The land use plan proposed in this document as a table ('Auroville Universal Township – master plan 2025'; p. 17) and the proposed land use of the township ('Auroville Universal Township – master plan 2025'; DRG 6) follows the four zones as shown in the figure above, and the proposed road layout as shown in the figure to the right.

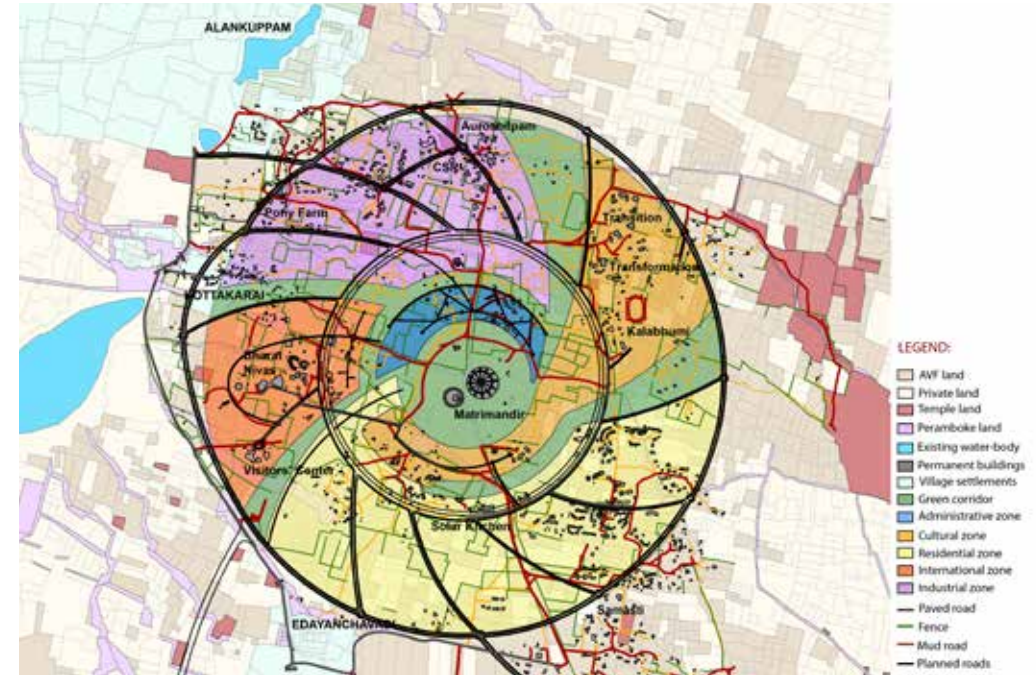


Figure - Schematic Roads layout as per Master Plan 2025

As such, there is no debate on the delineation of the zones, but the zoning, as indicated in these two maps, is on the macro level. Twelve years after the publication of these two maps in the master plan 2025, with the innovations in mapping and geophysical data analysis, it is time to undertake a more detailed land suitability analysis, and work towards more detailed land use specifications within each zone. The next chapters are a step towards this exercise.

Existing development and land use

After the inauguration of the project on 28th Feb. 1968, the development of the city did not commence as the land had not been acquired yet; access was via a couple of village paths criss-crossing the proposed city area, which connected the inland villages to the coastal villages. The development of the project was essentially confined to a mixed zoned settlement area near the coast, called the 'Auromodel' with housing for the pioneers, and schools and working areas. In the early 1970s 'Bharat Nivas – Pavilion of India Culture' was started, requiring a rotation of the city by 50+° anticlockwise to accommodate the project, while the Matrimandir was started in Feb. 1971. This rotation moved the location of the zones vis-à-vis the interrelation to the local geography by bringing the Industrial Zone inland, away from the coastal watershed. It also required rethinking the linkages to the local mobility network. From 1970-1985, the development was limited to isolated clusters of houses due to slow growth rate, poor land access and infrastructure, and no capital funding for public amenities. Hence, the impact of this rotation of the city plan was never evaluated in terms of linkages to the region from the proposed city.

From 1986-2000 the city developed in a piecemeal fashion, with some small-scale housing projects, the development of primary and middle schools, remodelling of the Bharat Nivas for cultural activities and a few public projects like the Visitors Centre and Solar Kitchen. The siting of most of the projects was done based on availability of land and access to it, costing and access to basic infrastructure like water and energy, coupled with funding potential. Most of the projects during this period proceeded incrementally. The population growth rate (<3%) did not allow for the structured development of public amenities to be cost effective.

From 2001-2013 there is a drive to establish the city. The first step was preparation of the master plan 2025 to help to initiate a dialogue with the local and state governments with the support of the central government.

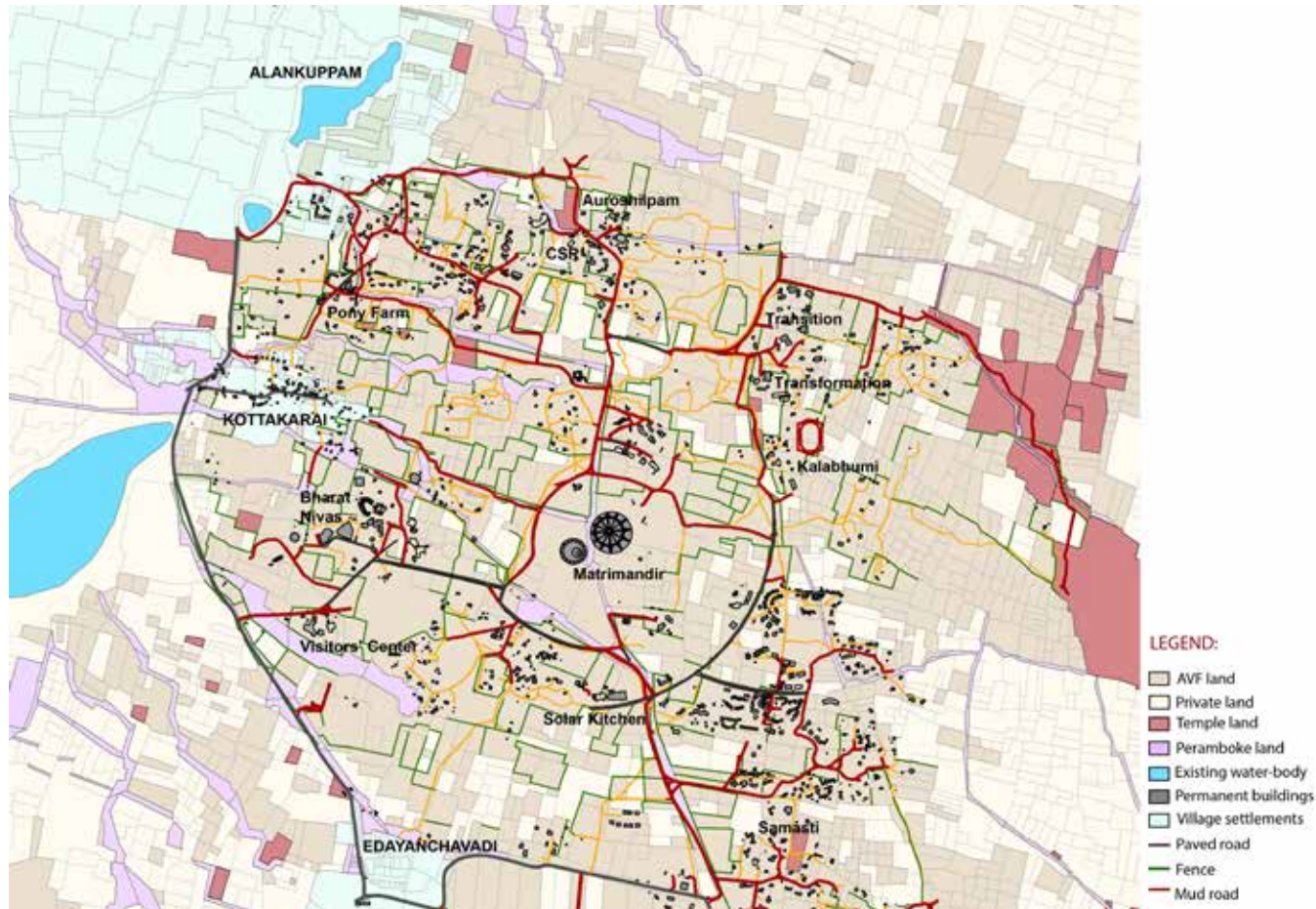
The annual flow of plan grant funding was secured for infrastructure, focusing mainly on roads, water and energy systems. As a continuation of the same drive, mapping of the existing lands and development within the city perimeter was taken up. Most of these developments are clumped in isolated pockets.

Mixed zoning in the Industrial Zone combines small-scale manufacturing, service and knowledge sector units interspersed with houses, farms and forested areas with a mobility network that has linkages via a pre-Auroville network of roads within and around the proposed city. In the Cultural Zone, there is a similar situation with the development of primary/middle and high school campuses with clusters of residential settlements, many of which predate the development of the schools. Extensive afforestation programmes have been implemented on pockets of land in and around this zone.

The Residential Zone, especially sectors 1 & 2, were largely undeveloped, except for settlements like Grace and two peripheral settlements bordering the edge of the city, namely Sharanga and Certitude. Most of the housing settlements have been developed in the last 20 years, again in a piecemeal manner due to the same background reasons described earlier.

The International Zone has the Visitors Centre that channels visitors daily, in numbers that exceed the resident population, and there are scattered buildings being developed that are to be the national pavilions, with financial support through the Auroville International members who work to secure an anchor in the zone for their country of origin.

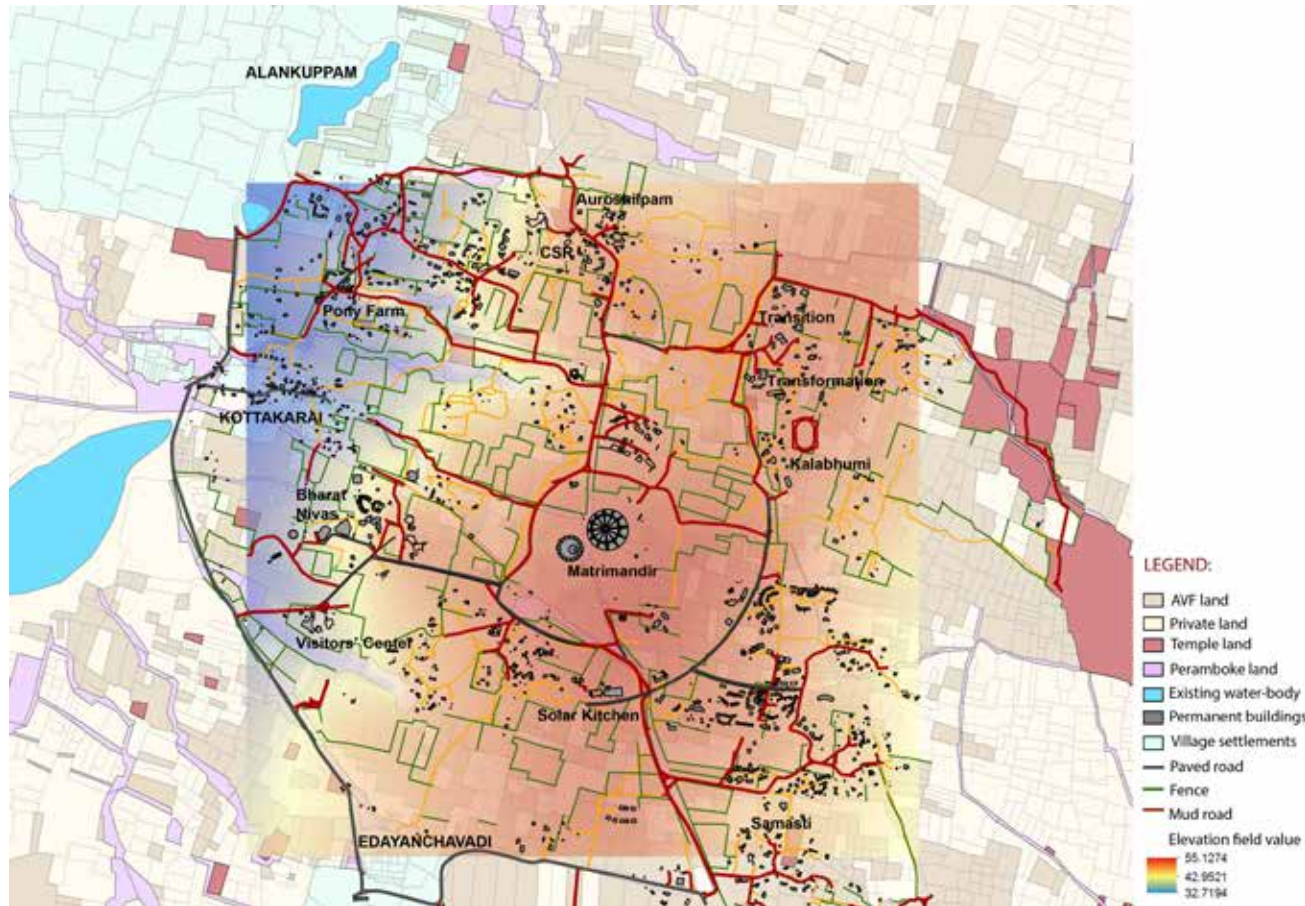
The challenge of working on a consolidated urban plan for Auroville that would permit the development of a coherent urban structure, allowing for phased growth, while integrating the present land use whenever and wherever possible, would be the most effective way forward to maximize the human and monetary capital already invested. Moreover, the differential development rate of Auroville, compared to the local villages and the creeping urbanization from Puducherry, is such that without securing the lands, development would be counterproductive because it would overload the carrying capacity of the resident population.



The spiritual mandate of the project invites voluntary participation to become a resident member, exercising a conscious choice to strive towards realizing the Auroville Charter.

This precondition excludes developing and implementing strategies to increase the resident population using the 'conventional' engines of growth to match a projected growth rate, combined with the lesson learned from the spate of new cities that were developed during the pre-2008 economic meltdown.

Moreover, the investment (natural and financial) over the last 45 years in the present land use with surface water management, plantations, development of infrastructure, settlements, public facilities and more, is valuable as a base for many of the innovative activities that have national and international recognition, besides being the basis of survival for the present population. Hence, integration and intensification of existing development would be the most effective way to manage a change from scattered semi-rural settlements to an urban project.



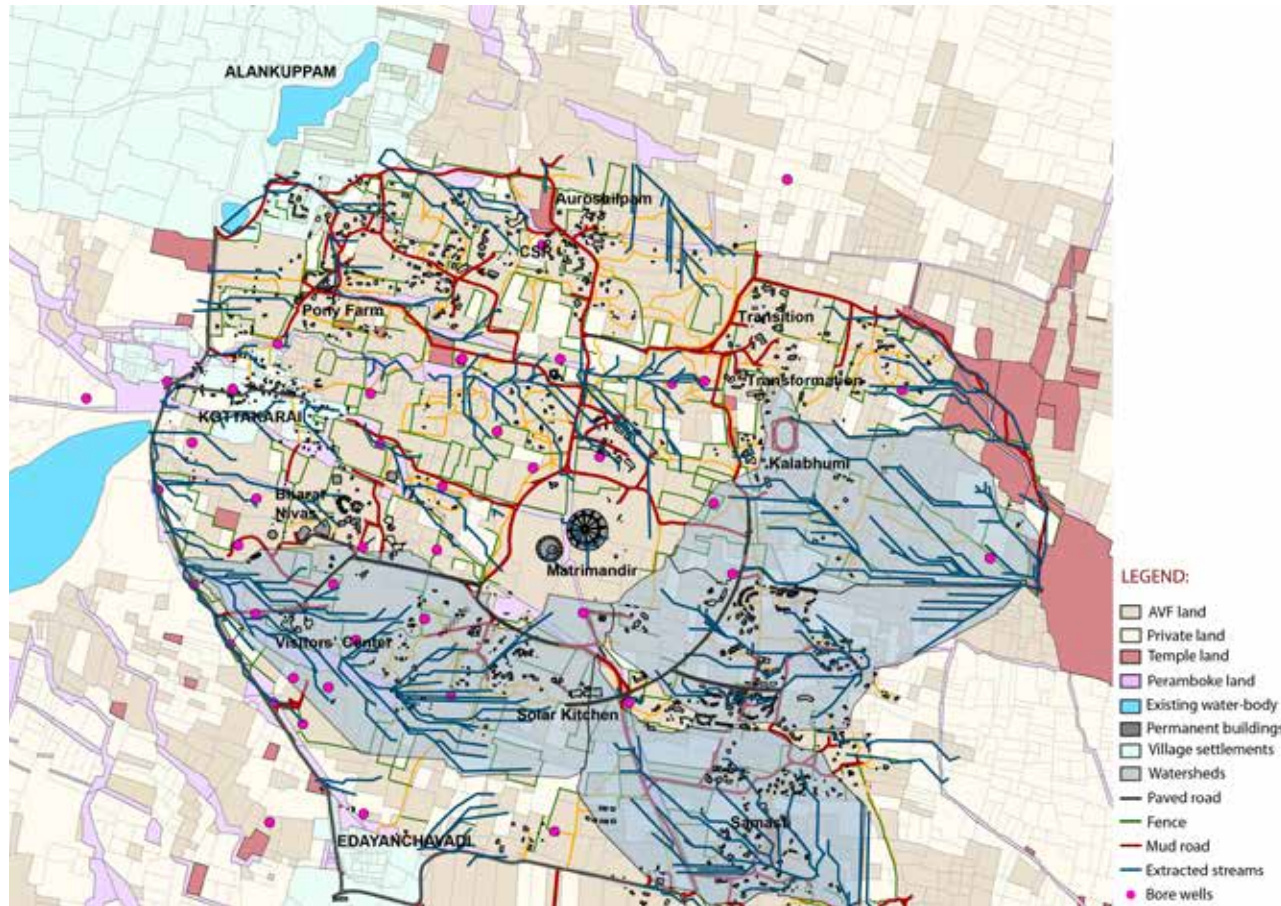
2.2. Elevations, Watersheds, Surface water management and bio-swales

2.2.1. Elevations

The centre of Auroville is located on a plateau that is 50 metres above mean sea level, on remnants of the Eastern Ghats that run from West Bengal to Coastal Tamil Nadu, running parallel to the coast of the Bay of Bengal. The Eastern Ghats are older than the Western Ghats, and they have a complex geological history related to the assembly and break-up of the ancient supercontinent of Rodinia and the assembly of the Gondwana supercontinent.

The Eastern Ghats are made up of charnockites, granite gneiss, khondalites, metamorphic gneisses and quartzite rock formations. The structure of the Eastern Ghats includes thrusts and strike-slip faults along its range. Limestone, bauxite and iron ore are also found in the Eastern Ghats hill ranges. These geological formations not only impact the watershed of the Auroville area but also the underground aquifers, along with soil composition and percolation capacity.

The condition of the local environment when Auroville was inaugurated demonstrates the vulnerability of this plateau to rapid top soil erosion, resulting in loss of capacity to hold soil moisture and loss of biodiversity due to the denudation caused. Therefore, judicious management of the watershed is crucial to the growth of an urban centre. The long-term sustainability of the project is dependent on surface water management with bunding, swales, shelter belt plantation and waterbodies in the city area, in coordination with a regional plan to secure the groundwater sources from saline infiltration caused by over-exploitation, pollution and leakages. Auroville has two types of watershed with the coastal sheet flow being more undisturbed due to most of the traditional settlements being coastal, while the inland watershed is gully flow with settlements like Irumbai/Kottakarai/Ediyanchavadi at the bottom of the watershed.



2.2.2. Extracted Streams and Watersheds

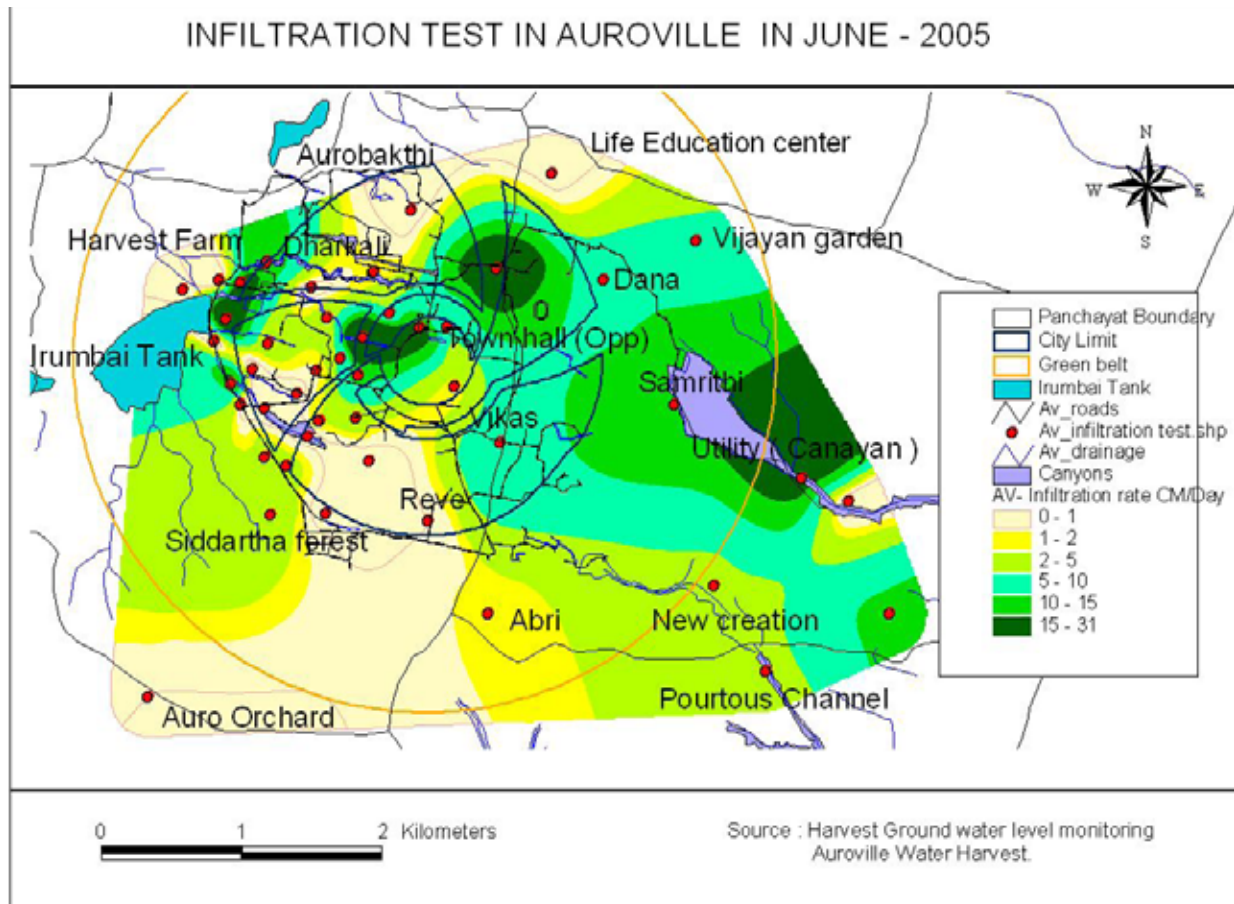
The stream network, as shown in the corresponding map (see above), was derived using hydrological modelling tools in ArcGIS, from the Auroville topographical survey of 2001. The extrapolated contour interval from that survey was 25 cm.

The watershed polygons were also extrapolated from the Auroville topographical survey of 2001, using hydrological modelling tools in ArcGIS. The precise polygons for the watersheds were extrapolated by using 'pour-points' as follows:

- For Residential Zone (north-east and east) – the pour-point was Utility canyon and Sukhavati canyon
- For Residential Zone (south-east) – the pour-point was Pitchandikulam pond
- For Residential Zone (west) – the pour-point was Aurodam outlet

These watershed boundaries indicate that all the water falling inside these polygons is going to collect and flow out of the 'pour-point' of that watershed. The streams imply that this is where the water flow concentration is going to be, flowing out of the 'pour-point' from that particular watershed polygon.

The land use plan should ensure that the water flow from all parts of the watershed polygon to the 'pour-point' is not obstructed, or it will result in water logging and, in the worst cases, flooding. Ideally, these streams should be buffered with native vegetation on both sides to slow down the flow, which will in turn avoid soil erosion and improve groundwater recharge. The buffer distance shall depend on the watershed size and quantity of flow. The streams could also be used to identify the locations of water retention ponds and to create green corridors, which could be used for passive, low-impact recreational activities.



2.2.3. Soil Infiltration rate

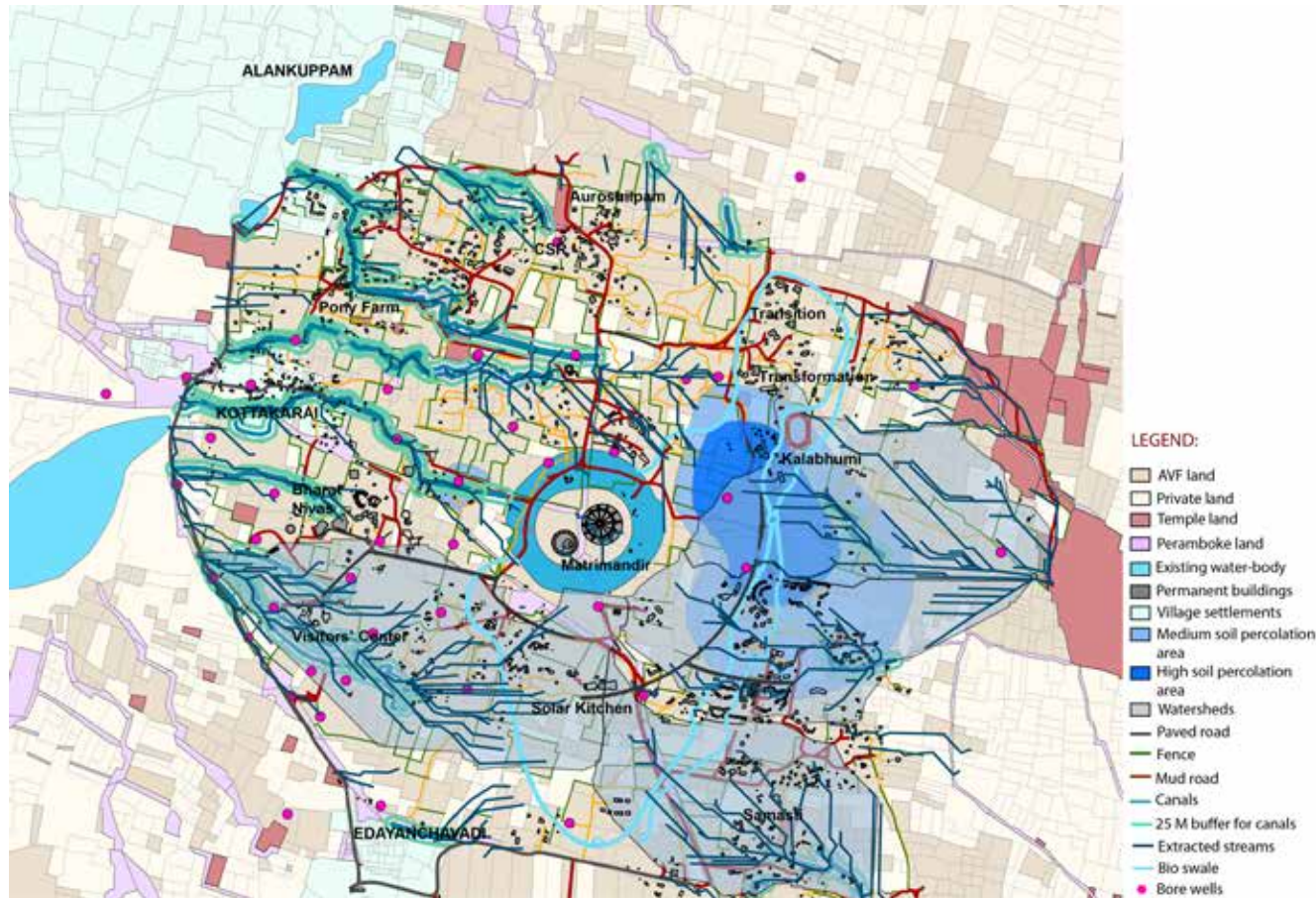
Infiltration is determined by using the appropriate tools and methodology. A double ring infiltrometer has been used in this case, by which the infiltration is measured by filling the rings with water. Once this equipment has been properly set up, the height of water entering into the soil needs to be checked at regular intervals. This exercise is continued until the value becomes constant or null. A curve is generated out of the results, and the stabilized rate of infiltration can be calculated. By repeating this test at various locations and integrating the values for each measured point, one can generate a thematic map by using GIS interpolation techniques.

The value of this map is great in regard to land use, pollution risk and determining the proper location of buildings and infrastructure. A high infiltration rate may be a cause of concern for pollution transfer from the surface to the soil or to the aquifer. Suitable protection and design parameters could be necessary in such cases. Of course, a high water table with a high infiltration rate at the surface will be of greater concern, but it is known that the transfer of pollutants from the surface, even to rather deep aquifers, is an important risk factor in tropical conditions.

On the other hand, high infiltration rates may advocate for recharge structures, which then will help to address run-off control and stormwater control through on-site techniques.

This should then be seen in regard to the context: does it make sense to recharge the aquifer systematically, or is it better to collect the run-off water? Accordingly, the location of buildings, parks, roads, etc. could be decided, and an impact assessment conducted.

In the context of Auroville, as long as the aquifer is protected, a high infiltration rate will naturally lead to integration of recharge structures, as can be seen in Vikas residential settlement in sector 2 of the Residential Zone.



But with increasing density, the pollution risk becomes more important, and because of the interdependency with the bioregion, the exploited aquifer, starting with the water table, is collapsing, with a serious risk of turning saline in the near future. Systematically recharging the aquifer on the scale of Auroville cannot counteract the ongoing degradation, as is proven now. Hence, it is better to collect the run-off and store it for further usage, along with infiltration measures.

A high infiltration area will potentially have less run-off than a low one, but this will depend on the density pattern since a built-up area will generate the same run-off, regardless of the nature of the soil below.

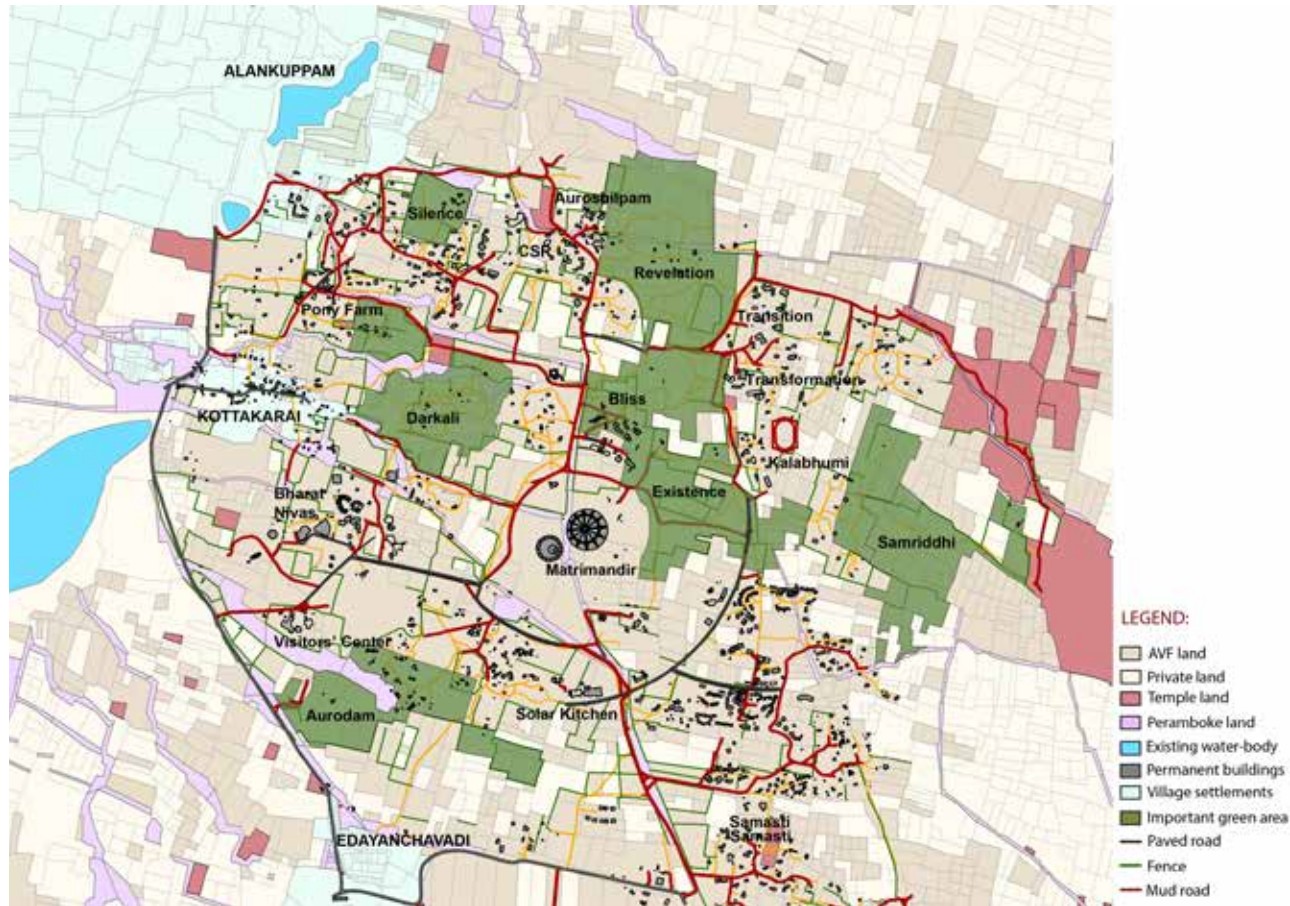
An overlay of the extracted streams, watersheds and high percolation areas would provide the information for:

1- Open space planning, along with an urban landscaping plan for surface water management and environmental restoration.

2- Land use as per suitability, including zoning for intermediate zones between built-up and non-built-up areas to ensure the least intrusive urban development with balanced use of resources and a quality of life that is in keeping with a project that aims for spiritual development.

3- Density of population, type of activities and mobility pattern required to move people, goods and services without damaging the environment or the quality of life of the resident population.

4- Macro level surface water management for storage, infiltration and recharge of the aquifer, coupled with a decentralized, user responsive urban waste management strategy.



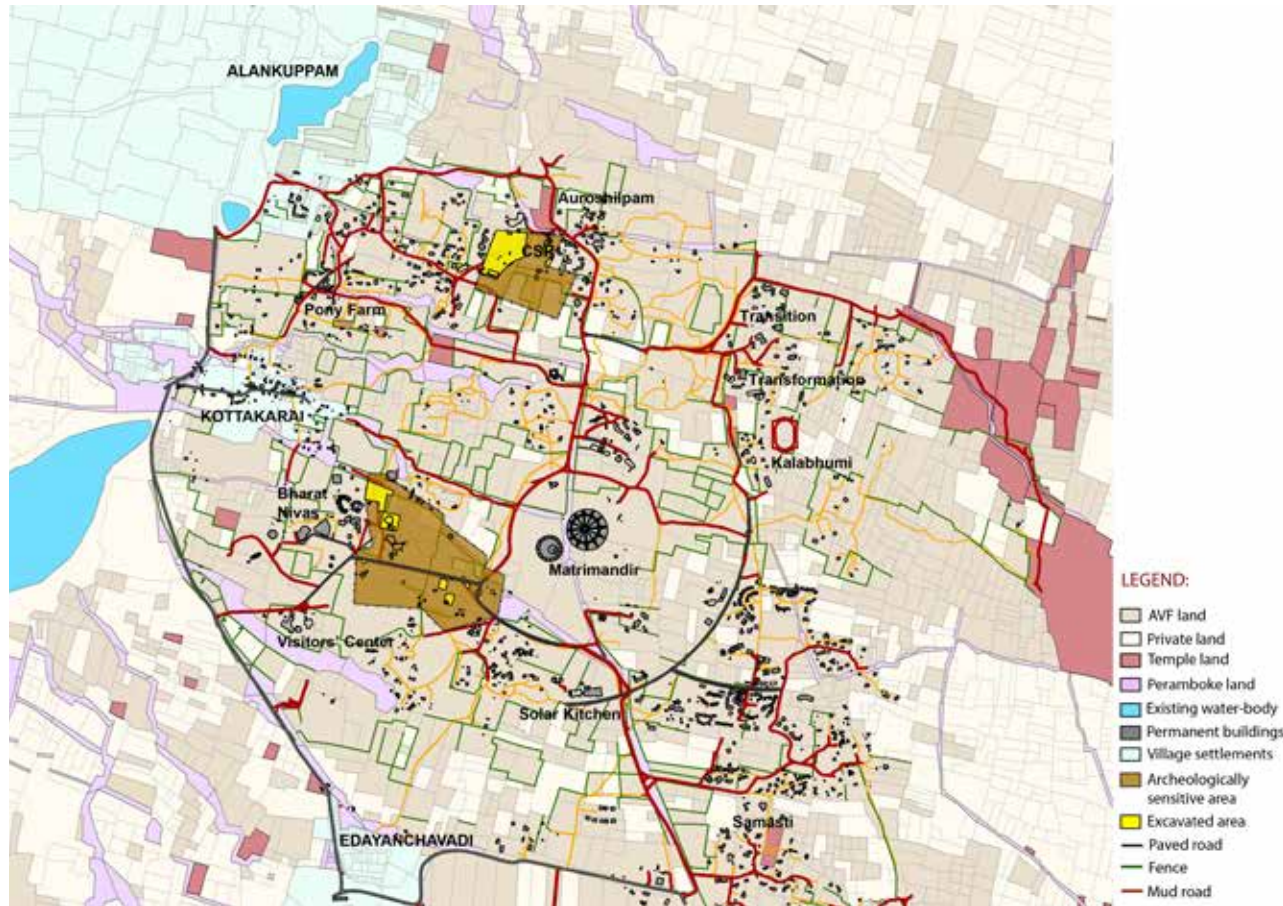
2.2.4. Forested and / or important green areas within the city

One of the first major collective activities that Auroville undertook after the project was inaugurated was the afforestation on the plateau. This was an effort to conserve the soil, prevent run-off and provide shade to allow the people to settle. What started as an anthropocentric need, has had a far-reaching impact regionally and locally in the last 45 years. The extensive afforestation in the township area has reduced the floods along the main drainage channel that drains to the west and south of Puducherry, decreased siltation in the local ponds on the inland side, and minimized the creeping growth of the canyons, while bringing change in the microclimate of the local area. The species diversity of the afforestation has changed from a preference for exotic plants in the 1970s and '80s to the systematic planting of indigenous species.

Seed collection from the local area, especially the sacred groves, establishment of nurseries, seed exchange programmes and monitoring of diversity has allowed the re-establishment of soil moisture and fertility, and the resultant microorganisms that generate top soil. Birds, pollinators, insects and small mammals have been returning to the area.

Within the city, there are pockets of afforested areas, planted and managed by the land stewards who are part of the forest group and green group. The location, extent and boundary conditions have developed based on land availability, the capacity (human + capital) of the land steward and the temporal situation when the programme was started. Many of these afforested areas are three to four decades old, allowing self-seeding, and storied forests are starting to emerge. Sensitive and judicious integration of these areas in the urban plan would require minimum intrusion of development, especially roads, and the creation of a shelter zone around them that will only have non-invasive land use. For example, in the forests and canyon of Aurodam, the urban plan and design should preserve and enhance this geophysical feature by integrating it within the high density residential development, like Central Park in New York City.

Any development that would physically isolate or visually exclude the green areas within the city should not be permissible by legislating appropriate land use, allowing this resource to be equitably accessible to present and future residents of Auroville.



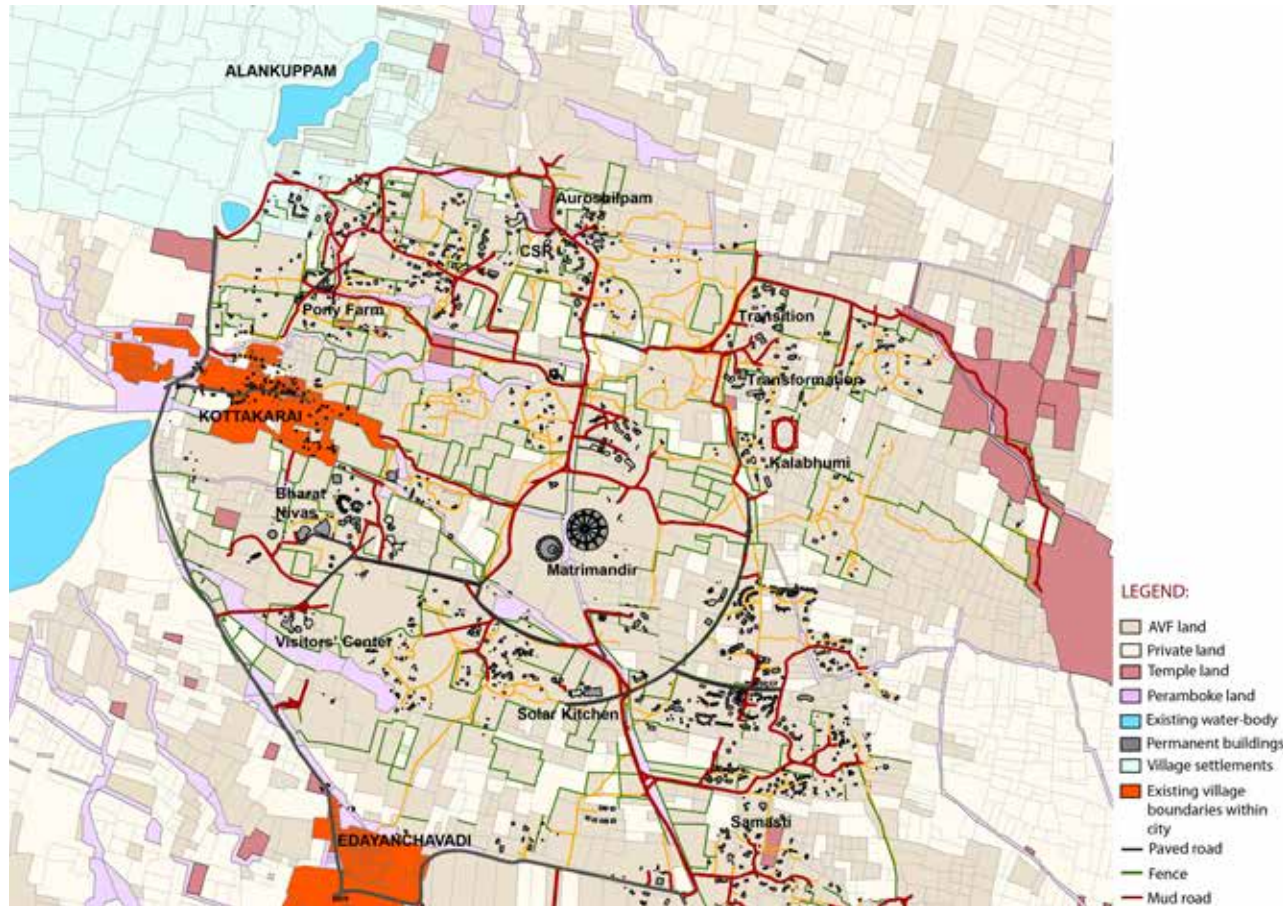
2.2.5. Archaeologically sensitive area within the city

Along with integration of the geophysical features that have been covered in the previous section, there are other important, existing man-made features that should be integrated, preserved and enhanced. From the mid-1980s, while digging for tree planting, foundations for structures and infrastructure laying, people have been unearthing evidence of settlements of archaeological importance. Mapping these points and correlating them has given us the rough extent of archaeological sites. These have also been indicated in the master plan document 2025. Two historical periods have been identified from the 25 rescue excavations carried out to date by the AMA (Archaeological Museum of Auroville) over the last 35 years.

In the International Zone, around Bharat Nivas and towards the Matrimandir, a massive burial ground of the megalithic period dating from 500 BCE- 500 CE has been identified. Among the artefacts found, there are exceptional ritual bronze and iron objects, semi-precious stones and glass beads, huge terracotta urns and pottery of all sizes and shapes. The second period dates from the Chola dynasty, 1000 CE (Raja Raja, Chola period), and relics have been discovered around the Shradhanjali and CSR area in the Industrial Zone. This is a settlement area with coins, pottery and some Roman-style bricks.

In principle, once the excavations have been carried out and documented, most of these places could be available for any landscaping and/or building activity. However, there are some sites that would need to be preserved; i.e. the proposed site of an in situ archaeological museum as part of the Tamil heritage centre, where the 'king's burials' have been found.

Wherever possible, the cairn circles should be included in the urban plan as public landscape features with appropriate signage. The excavations and findings thereof provide an excellent opportunity for learning, exchange programmes, educational and research activities for Auroville and village schools, as well as universities offering history and archaeology in their curriculum.

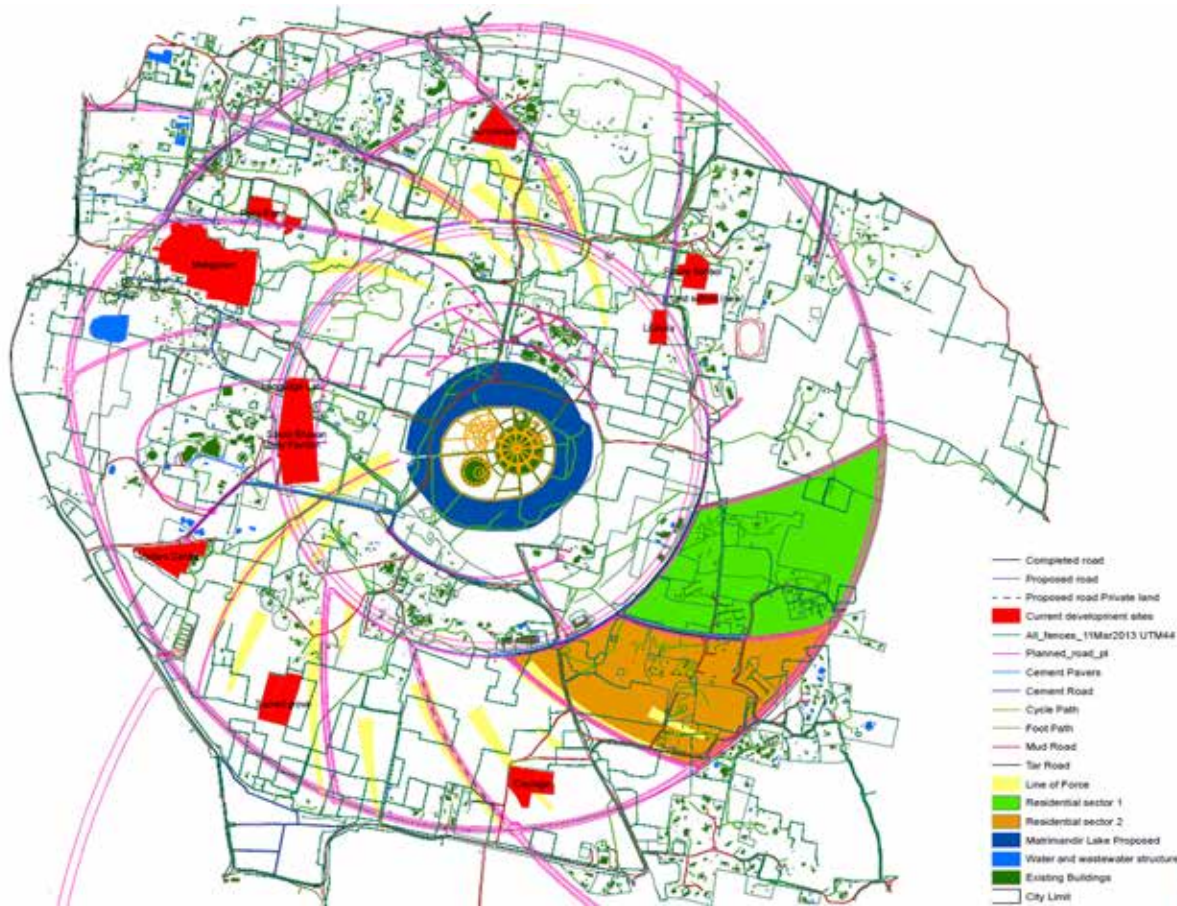


2.2.6. Villages adjacent and within the city

There are three villages (Ediyanchavadi, Kottakarai/Bharatipuram & Allankuppam) that lie within and overlapping the limits of the Auroville city area. These villages predate the project. The villages of Ediyanchavadi and Kottakarai/Bharatipuram fall within the Vanur block of Villupuram district in the state of Tamil Nadu, while the village of Allankuppam is part of the union territory of Puducherry. Comparative figures show that the decadal population growth in Villupuram district has jumped from 7.43% from 1991-2001 to 16.99% from 2001-11, which is a considerable increase. The village of Ediyanchavadi has a population of 2,760 persons with a settlement area of 52 acres (14.5 person/acre) and the village of Kottakarai/Bharatipuram has 1,400 persons on an area of 62.5 acres (2.24 persons/acre). The Puducherry village of Allankuppam has about 2,000 persons on 14.3 acres (139 persons/acre).

The villages within Tamil Nadu have had a lower density due to the nature of the geographic location compared to the village in Puducherry, but this is changing in Ediyanchavadi, which falls in the periphery of the high density sector of the Residential Zone, situated on the crossroads of a panchayat road that links the coastal highway to the inland highway. In the manner of the villages that are within the metropolitan area of New Delhi, this village could evolve from providing unskilled labour, to basic services, to becoming a high-end commercial zone as Auroville develops and attracts more visitors and tourists. The village of Kottakarai is situated on the cusp between the International and Industrial Zones, and has less commercial value today, but when the Industrial Zone develops, it will be able to piggyback on this to create small commercial services to serve the zone. While Bharatipuram, which is mainly developed on peramboke land, may not be able to grow beyond the peramboke boundaries, it would benefit the most in the long run from the development of Auroville. This settlement is well within the city area and is strategically placed due to a planned road (International Zone periphery radial) that cuts through it, bringing visitors along with economic and social opportunities. Moreover, as a squatter settlement on government lands, the development within the village will be an outcome of opportunity (siting), influence (social) and coercion (economic and political), making it difficult to have a long-term collaborative land use policy.

Allankuppam village is located in the state of Puducherry, and this could offer Auroville lands within its geographical boundaries unique economic opportunities. It borders the Industrial Zone of Auroville, which allows both entities to have a mutually beneficial relationship.



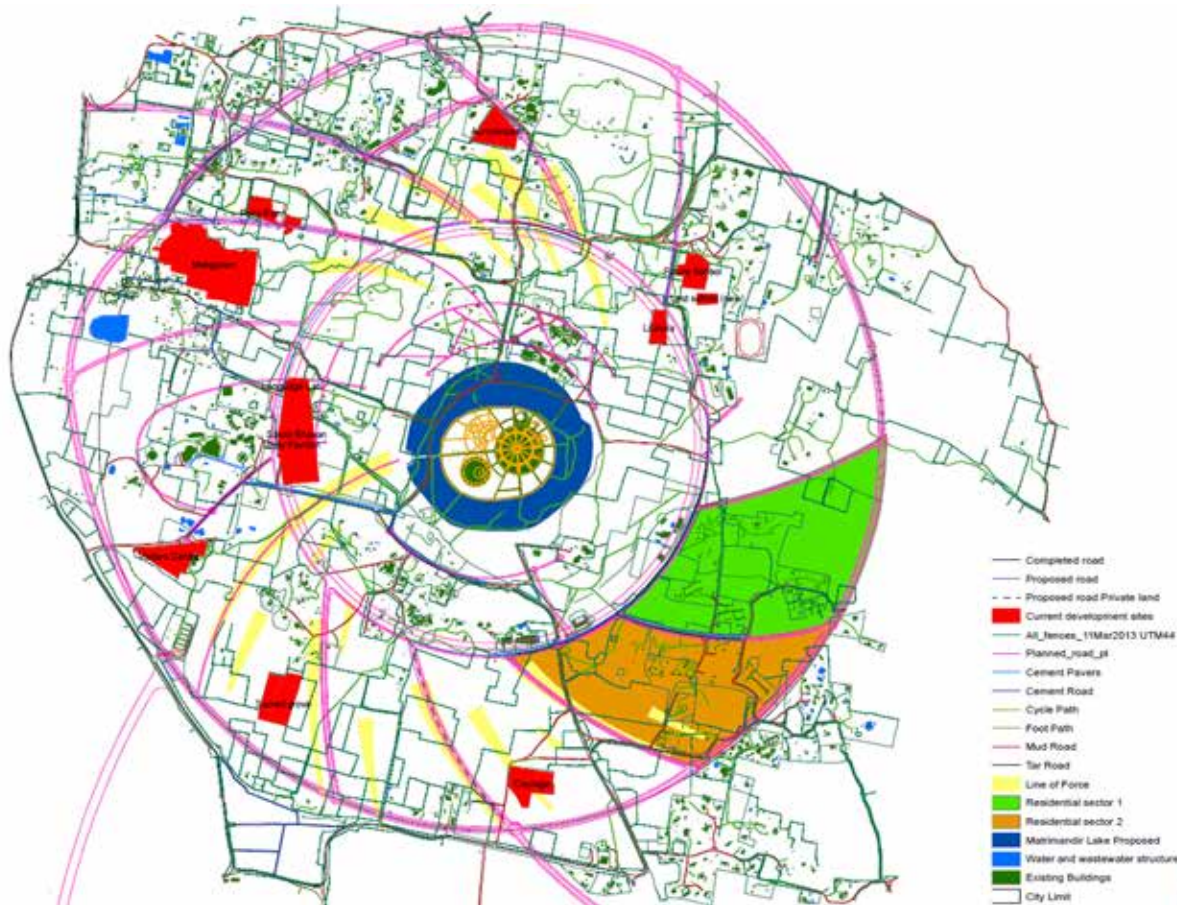
2.2.7. Anticipated and on-going development in the city area 2013 -2018

The development within the city area is an outcome of three drivers. These comprise initiatives by special interest groups, individuals with the capacity to fund raise or personally bank roll development, and finally, by Auroville Foundation plan grant funds from the Government of India via the Ministry of Human Resources. The location, size and relevance of the development are therefore an outcome of the personal network of the drivers initiating it and their ability to influence decision making by the working groups in charge of development. The planning body is the 'Town Development Council (TDC) – L'Avenir D'Auroville', which works with the Funds and Assets Management Committee (FAMC), the Housing Board and Service, the Green Group and the Land Consolidation Committee (LCC).

There are several informal lobby groups like the group that interprets the city planning and development as a direct implementation of the galaxy concept to public interest groups, e.g. the International/ Industrial Zone groups. Depending on the type and impact of any development proposed, these punctual and informal groups tend to form to influence, arrest or modify the development.

Special interest groups usually invest in institutional or semi-institutional projects where they have direct participation as users or providers. These projects may or may not help in providing basic civic amenities that would be needed within the development priorities. The type of funding is usually limited to capital funding, and, once completed, the projects tend to depend on community resources to finance the operating and maintenance costs due to the nature of the local economic model, and also because of the projects being out of proportion to the number of users and the low growth rate of the project.

The projects that are privately financed tend to be in the housing sector, where there could be seed capital invested by an individual or small group. They could, by tailoring the project, attract other individuals who are like-minded to invest in the project and be part of the project as future residents. These types of housing projects are very similar to gated communities in the type of facilities and amenities that they provide. The long-term success of these projects depends on the residents' financial and social capacities.



Another outcome of this model of development is dispersion of the amenities, activities and population leading to over-dependence on individualized motorized vehicles.

**PROJECT IN THE PIPE LINE 2013-18
Institutional / educational / social / Industrial
project**

1. Unity pavilion
2. Savitri Bhavan
3. Bharat Nivas
4. Visitors Centre
5. Pavilions of some countries
6. Mangalam
7. Auroshilpam
8. Kottakarai plaza
9. Health Clinic
10. Food distribution Center
11. Multi Purpose Building
- 12 . Future / last / after schools and allied campus development

The last driver in the development programme is financially supported by the government of India. The TDC undertakes two types of activities with this grant-in-aid: funding studies in planning and infrastructure development like roads/water/energy/waste management/infrastructure, and cost-effective housing projects. The Sri Aurobindo International Institute of Educational Research (SAIIR) uses its grant in aid funding towards development of education-related projects like schools, studios and sports. While the Bharat Nivas Trust, as the Indian Pavilion, has direct funding for its activities, along with some grants for capital investment in buildings to house cultural/educational activities. A combination of low growth rate and fragmented development drivers, coupled with the imperative to invest in iconic architecture within the paradigm of zoning as interpreted by lobby groups, has led to case-by-case decision making by the planning bodies.

Housing projects as named below comprising mostly of Apartment type of Habitats

1. Invocation
2. Kalpana
3. Sanjana
4. Maitreye
5. Green Casbah
6. Swayam
7. Sacred Groves

What would the purpose of a land use plan be?

1. To have a public policy encompassing various disciplines which seek to order and regulate land use in an efficient and ethical way, thus preventing land use conflict.
2. Manage the development of land within its jurisdiction.
3. Plan for the needs of the community while safeguarding natural resources.
4. Provide the base information to prepare the urban planning guidelines, including transportation networks, to guide and ensure the orderly development of settlements and communities.

What are the operating principles for this proposed land use plan for Auroville?

Land resources and ecosystem services

1. Incorporate ecosystem services outputs for long-term sustainability of the project Geophysical features

- Surface water management- prevent sedimentation and pollution of waterbodies
 - Groundwater resources – conservation and prevention of pollution
 - Urban surface water harvesting systems with bio-swales and ponds
 - Avoid land use and development that will cause perturbation in ecosystem services
 - Conservation of productive areas and soil nutrients
- Biodiversity
- Identify and protect areas with remarkable trees and contiguous vegetation, especially existing forests and edge ecosystems
 - Protect productive soil areas with forest/farms and open spaces
 - Linking of contiguity of land use/green cover for movement of fauna

Sustainable urban development strategies

- Mobility as a function of services and densities
- Solar passive and active systems integrated into urban planning
- Activity networking with mixed zoning for optimum infrastructure development
- Cultural capacity (quality of life)
- Auroville Charter/international city dedicated to human unity, education, innovation and research
- Value existing land use by integrating existing networks and interdependency
- Provide for co-evolution with development in the region
- Socio-economic opportunity for sustainable growth

2. Informed by the proposed zones & roads (MP 2025/2001) based on the galaxy concept for the township

3. Provide for sustainable networks between –

developed and open spaces
mobility and function
services and densities

4. Integrate the cultural capacity (quality of life) and interdependency between Auroville and the region



3.2. Residential Zone

Of the 1,212 acres that constitute the city area of Auroville, the Residential Zone is about 533 acres or 44%, with 280 acres that are directly under residential development and about 253 as roads, green areas and civic amenities.

An overlay of the master plan 2025 land use and road layout on the geophysical features of the land brings out eight main issues besides several related ones (refer to the map).

3.2.1. POINT 1 – The location and point of intersection between the radial on the periphery of sector 1 and the outer ring road is located in the forest of Samridhi – Anusuya; bringing a feeder/distributor node into this area is detrimental to the forest, besides providing an opportunistic penetration from the canyon path that links Kulapalayam village to the settlement of Sangha. Additionally, extending this outer ring road further, towards Revelation – Minati settlement, will plug into the network of the regional road development.

3.2.2. POINT 2 – The radial between sector 1 and the Gaia park cuts off the residents from the green space, while working as a singly loaded road, thereby inviting bypass traffic from the outer ring road to the Industrial and Cultural Zones. This road is also placed over a high percolation area.

3.2.3. POINT 3 – The location and point of intersection between the radial linking sectors 1 & 2 with the outer ring road is located on a fragile point of convergence of the extracted flow area; this road will increase erosion as it will act as a water flow collector channel. Due to the level drop from the node of the same radial at the crown to this point (+5 m drop), it is advisable to avoid extending the radial and discontinue the outer ring road as a vehicular road. The recommendation would be to shift the outer ring road in sectors 1 & 2 of the Residential Zone and make it into an internal distributor with development on both sides to mute the flow of traffic.

3.2.4. POINT 4 – This radial needs to be buffered with a shelter belt plantation along the southern edge to manage surface and roof run-off, and it is advisable to create water catchment tanks by enhancing the natural depressions at the merging point of the extracted flows. These interventions will create unique urban landscaped spaces for the settlements in sectors 1 & 2.

3.2.5. POINT 5 – The issues at this node are similar to the issues laid out in Point 3. With development there will be an increase in the impervious area, which will increase the surface run-off.

3.2.6. POINT 6 – The radial between sectors 4 & 5, is wrongly placed in relation to the surface water flow, existing forests and the head of the canyon of Aurodam. This radial should be shifted or even



	area in m2	area in acres	% of the total
total area of the city	49,00,705.00	1,212.00	
total area of the residential zone	21,56,958.00	533.00	43.98%
sector areas			
Sector 1	2,39,992.96		
Sector 2	2,13,170.42		
Sector 3	2,37,682.42		
Sector 4	1,94,499.11		
Sector 5	2,49,549.47		
area available for habitat development	11,34,894.39	280.67	52.66%
green / roads / amemnites		252.33	47.34%

(refer to the map as an illustration to demonstrate an optional interpretation for the recommendations).

1- Allow the boundary between the urban areas and the green belt to integrate the natural features of the land and existing land use.

2- Reposition the radials at the edges of the Residential Zone so they become an internal distributor for sectors 1 and 5.

3- Move, truncate and/or limit the radials that are presently positioned on ecologically sensitive areas.

4- Re-evaluate the need for an outer ring road in sectors 1 & 2, and change its function from being a collector-feeder to a feeder-distributor road.

5- Accept the panchayat road as the outer ring road and work on the type of development that could be located along this road that would be mutually beneficial to the villages and Auroville, creating a co-development zone.

discontinued.

3.2.7. POINT 7 – An outer ring road from sector 3 to 5 is superfluous given the existence of the panchayat road. Providing a private outer ring road to control the traffic and prevent penetration into the city when the gap between the two roads is no greater than a couple of metres to 15 metres is a statement of the failure of cooperative planning with the region. With this road, we are stating that Auroville is only able to exist in isolation as an experiment in human unity.

3.2.8. POINT 8 – The radial between sector 5 and the park that buffers the International Zone is not only located over an ecologically sensitive area but also denies the residents of this urban area an opportunity to access a natural land feature that could enhance their quality of life. Furthermore, this radial, like the radial mentioned in Point 2, cuts off the development's access to the park while being singly loaded, inviting bypass traffic.

These points of conflict could be resolved without losing the overall layout of the sectors and their interrelation to the city by tweaking the following



If these adjustments are permitted, we can play out two scenarios. Scenario 1, as an extreme case, with the baseline parameters as:

- Most of the existing settlements in the Residential Zone are not inclined to accept more development unless it follows a participatory model
- Privately owned land is not for sale due to issues of ownership, sale value and/or sale to outside agencies who value the proximity to Auroville
- A population growth rate of 4% per annum (almost double the decadal growth rate)
- Lack of sufficient public capital investment in the socio-economic sector permitting individuals to finance their housing
- Accepting low-rise (walk-up buildings of ground + 3 floors with solar passive envelope design for low-impact development), low to medium density with pockets of high density

We would be able to accommodate about 18,000 persons in the Residential Zone, along with all amenities and services from the neighbourhood level to the sector and zonal levels. With 4% growth rate we would be about 5,000 persons in 15 years, and this population could be accommodated in sectors 1 & 2 without having to negotiate the parameters outlined. (Refer to the map above and attached tables; next page.)

		Area available for development (sq M)	FAR	Total Height from road level (M)	Ground cover in %	Ground coverage in sq M	Built up area (sq M)	population@38m2 / per
Sector 1								
Park like	1	556.16	0.50	7.50	20.00	111.23	278.08	7.32
	2	2,323.98	0.50	7.50	20.00	464.80	1,161.99	30.58
	3	28,964.30	0.50	7.50	20.00	5,792.86	14,482.15	381.11
	4	829.15	0.50	7.50	20.00	165.83	414.58	10.91
	5	10,856.96	0.50	7.50	20.00	2,171.39	5,428.48	142.85
	6	4,757.04	0.50	7.50	20.00	951.41	2,378.52	62.59
		48,287.59					24,143.79	635.36
								Total population
Row houses & clusters	1	8,781.51	1.00	10.00	30.00	2,634.45	8,781.51	231.09
	2	8,747.05	1.00	10.00	30.00	2,624.12	8,747.05	230.19
		17,528.56					17,528.56	461.28
								Total population of Row houses & clusters
		65,816.15					41,672.36	1,096.64
								Total population of sector 1
Sector 2								
Park like	7	10,312.49	0.50	7.50	20.00	2,062.50	5,156.24	135.69
	8	22,966.03	0.50	7.50	20.00	4,593.21	11,483.01	302.18
	9	8,903.36	0.50	7.50	20.00	1,780.67	4,451.68	117.15
		42,181.87					21,090.93	555.02
								Total population
Row houses & clusters	3	4,264.04	1.00	10.00	30.00	1,279.21	4,264.04	112.21
	4	7,141.71	1.00	10.00	30.00	2,142.51	7,141.71	187.94
		11,405.75					11,405.75	300.15
								Total population
Row houses &	1	15,148.49	1.50	11.25	40.00	6,059.40	22,722.74	597.97
		15,148.49					22,722.74	597.97
								Total population
		68,736.11					55,219.42	1,453.14
								Total population of sector 2
Sector 3								
Park like	10	15,637.81	0.50	7.50	20.00	3,127.56	7,818.90	205.76
	11	2,236.24	0.50	7.50	20.00	447.25	1,118.12	29.42
	12	1,097.29	0.50	7.50	20.00	219.46	548.65	14.44
	13	8,311.32	0.50	7.50	20.00	1,662.26	4,155.66	109.36
	14	15,161.03	0.50	7.50	20.00	3,032.21	7,580.51	199.49
		42,443.68					21,221.84	558.47
								Total population
Row houses & clusters	5	2,137.61	1.00	10.00	30.00	641.28	2,137.61	56.25
	6	6,080.23	1.00	10.00	30.00	1,824.07	6,080.23	160.01
	7	3,106.20	1.00	10.00	30.00	931.86	3,106.20	81.74
	8	673.96	1.00	10.00	30.00	202.19	673.96	17.74
	9	15,321.89	1.00	10.00	30.00	4,596.57	15,321.89	403.21
		27,319.90					27,319.90	718.94
								Total population

Row houses & apartment	2	10,984.23	1.50	11.25	40.00	4,393.69	16,476.35	433.59
	3	1,259.14	1.50	11.25	40.00	503.66	1,888.71	49.70
	4	2,519.34	1.50	11.25	40.00	1,007.74	3,779.02	99.45
	5	7,072.57	1.50	11.25	40.00	2,829.03	10,608.86	279.18
	6	531.24	1.50	11.25	40.00	212.50	796.86	20.97
	7	4,322.59	1.50	11.25	40.00	1,729.04	6,483.89	170.63
			26,689.13					40,033.70
								Total population
Apartment	1	9,843.93	2.00	12.00	50.00	4,921.97	19,687.87	518.10
	2	7,080.32	2.00	12.00	50.00	3,540.16	14,160.65	372.65
	3	9,042.95	2.00	12.00	50.00	4,521.48	18,085.90	475.94
	4	9,586.47	2.00	12.00	50.00	4,793.23	19,172.94	504.55
		35,553.68					71,107.36	1,871.25
								Total population
		1,32,006.39					1,59,682.79	4,202.18
								Total population of sector 3
Sector 4								
Row houses & clusters	10	15,851.01	1.00	10.00	30.00	4,755.30	15,851.01	417.13
	11	2,085.08	1.00	10.00	30.00	625.52	2,085.08	54.87
	12	25,763.41	1.00	10.00	30.00	7,729.02	25,763.41	677.98
	13	2,015.18	1.00	10.00	30.00	604.55	2,015.18	53.03
		45,714.68					45,714.68	1,203.02
								Total population
Row houses & apartment	8	29,961.32	1.50	11.25	40.00	11,984.53	44,941.98	1,182.68
		29,961.32					44,941.98	1,182.68
								Total population
Apartment	5	35,979.02	2.00	12.00	50.00	17,989.51	71,958.04	1,893.63
		35,979.02					71,958.04	1,893.63
								Total population
		1,11,655.01					1,62,614.69	4,279.33
								Total population of sector 4
Sector 5								
Row houses &	9	79,911.05	1.50	11.25	40.00	31,964.42	1,19,866.58	3,154.38
		79,911.05					1,19,866.58	3,154.38
								Total population
Apartment	6	27,764.58	2.00	12.00	50.00	13,882.29	55,529.17	1,461.29
	7	5,066.59	2.00	12.00	50.00	2,533.29	10,133.18	266.66
	8	12,616.03	2.00	12.00	50.00	6,308.02	25,232.07	664.00
	9	27,816.35	2.00	12.00	50.00	13,908.18	55,632.70	1,464.02
		73,263.56					1,46,527.11	3,855.98
								Total population
		1,53,174.61					2,66,393.69	7,010.36
								Total population of sector 5
		5,31,388.27					6,85,582.95	18,041.66
								Total population of residential zone



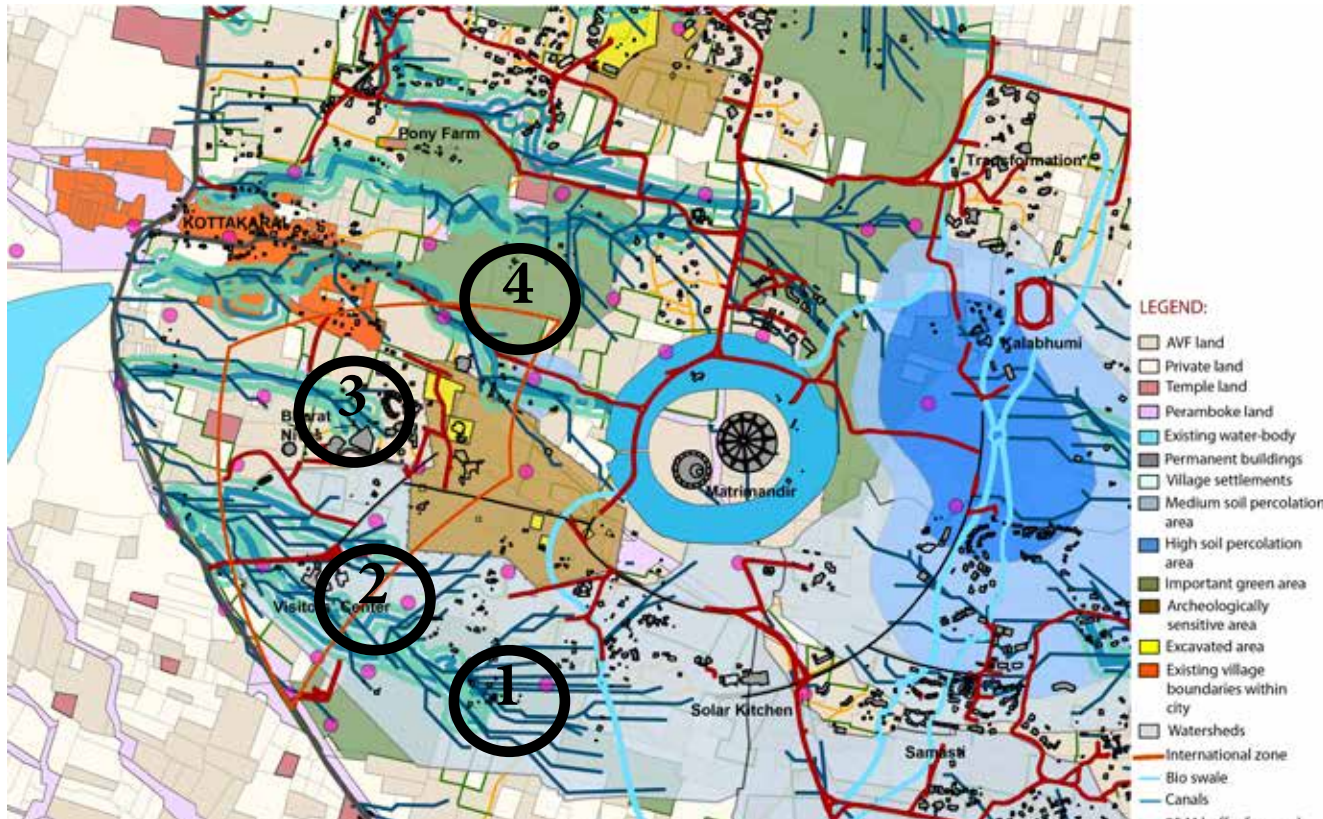
	Area available for development (sq M)	FAR	Total Height of Bld from road level (M)	Ground cover in %	Ground coverage in (sq M)	Built up area (sq M)	population@ 38 m2 / pers
Sector 1							
Park like	1,72,580.90	0.50	7.50	20.00	34,516.18	86,290.45	2,270.80
Row houses	67,412.08	1.00	10.00	30.00	20,223.63	67,412.08	1,774.00
	2,39,992.98				Total population of sector 1	1,53,702.53	4,044.80
Sector 2							
Park like	1,01,592.54	0.50	7.50	20.00	20,318.51	50,796.27	1,336.74
Row houses & clusters	54,252.56	1.00	10.00	30.00	16,275.77	54,252.56	1,427.70
Row houses & apartment	57,325.32	1.50	11.25	40.00	22,930.13	85,987.98	2,262.84
	2,13,170.42				Total population of sector 2	1,91,036.82	5,027.28
Sector 3							
Park like	75,941.11	0.50	7.50	20.00	15,188.22	37,970.56	999.23
Row houses & clusters	48,194.67	1.00	10.00	30.00	14,458.40	48,194.67	1,268.28
Row houses & apartment	60,776.50	1.50	11.25	40.00	24,310.60	91,164.75	2,399.07
Appartment	52,770.14	2.00	12.00		26,385.07	1,05,540.28	2,777.38
	2,37,682.42				Total population of sector 3	2,82,870.25	7,443.95
Sector 4							
Row houses & clusters	99,763.46	1.00	10.00	30.00	29,929.04	99,763.46	2,625.35
Row houses & apartment	54,769.78	1.50	11.25	40.00	21,907.91	82,154.67	2,161.96
Appartment	39,565.88	2.00	12.00	50.00	19,982.94	79,931.77	1,598.64
	1,94,499.12				Total population of sector 4	2,61,849.89	6,385.95
Sector 5							
Row houses & apartment	1,23,317.16	1.50	11.25	40.00	49,326.86	1,84,975.73	4,867.78
Appartment	1,26,232.32	2.00	12.00	50.00	63,116.16	2,52,464.64	6,643.81
	2,49,549.47				Total population of sector 5	4,37,440.37	11,511.59
	11,34,894.42				total of residential zone	13,26,899.86	34,413.59
CROWN	69,165.00						

Scenario 2 as an alternative with the baseline parameters as:

- All the existing settlements in the Residential Zone are inviting more development within the settlement
- All the privately owned land has been bought before the end of 2015
- A population growth rate of 10% per annum (have faith and forget the decadal growth trend)
- Public capital is no issue and livelihood options create a socio-economic climate permitting public housing projects for free occupation by the residents as per their needs and personal situation
- Accepting low-rise (walk-up buildings of ground + 3 floors with solar passive envelope design for low-impact development) low to medium density with pockets of high density

We would be able to accommodate about 35,000 persons in the Residential Zone, along with all amenities and services from the neighbourhood level to the sector and zonal levels. With 10% growth rate we would be about 13,000 persons (including the present population of 2,500) in 15 years and this population could be accommodated in sectors 1 to 3 within the outlined parameters. (Refer to the map and attached tables above.)

Both scenarios demonstrate that by tweaking the master plan 2025, the long-term environmental sustainability of the project does not contradict the potential growth in population or sabotage the habitat creation potential for 50,000 inhabitants, which is referred to as the ideal number indicated by the Mother.



3.3 International Zone

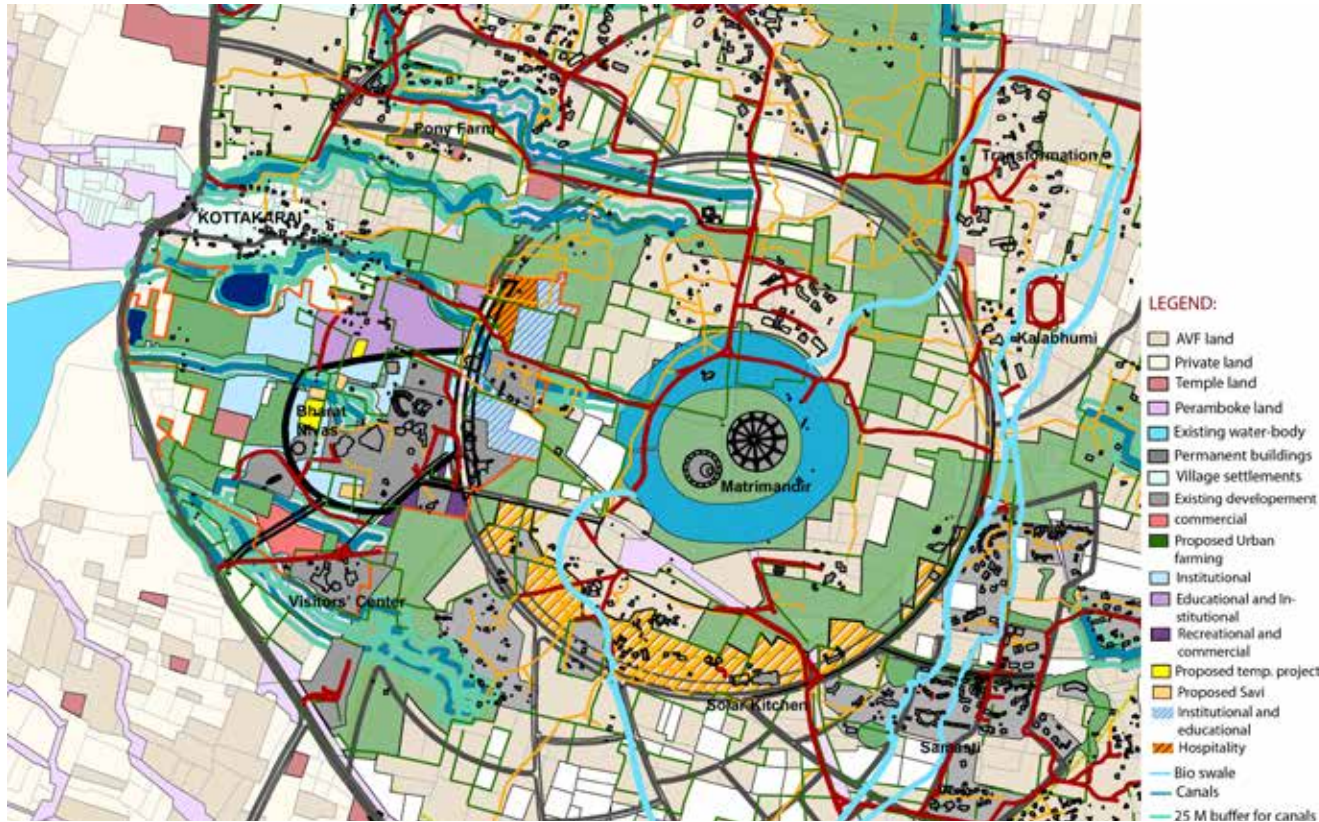
Of the 1,212 acres that constitute the city area of Auroville, the International Zone is about 150 acres or 12.3%, with 37.15 acres already settled, along with 4.25 acres that are in seasonal waterbodies as they are low-lying. An overlay of the master plan 2025 land use and road layout on the geophysical features of the land brings out four main issues besides several related ones (refer to the map).

3.3.1. POINT 1 – The radial in sector 5 is supposed to have a link at this point over the canyon to provide the main entry point for the International Zone. Not only would this be detrimental to the green buffer that segregates the two zones, but it would require extensive barriers to prevent spillover of the external tourist/service traffic into the Residential Zone and the green area. Instead, this canyon and the green buffer should be integrated as a restricted access green area to increase the water holding capacity of the soil here.

3.3.2. POINT 2 – This is the present vehicular link to the panchayat road with two cremation sites and a burial plot near the point of intersection. This point is also a low-lying area with water flowing to Irumbai tank. It is 950 m from Kottakarai and 800 m from Ediyanchavadi on the panchayat road, with an established right of use preventing any conflict with both the villages in terms of spillover of commercial development benefits.

3.3.3. POINT 3 – The land along the periphery of the International Zone, including the lands between the master plan 2025 outer ring road and the panchayat road, is low-lying with a high water table. This area is ideal for food growing, water harvesting with ponds, and for access to potable water when saline intrusion occurs towards the eastern side of the city. As mentioned in 3.2.7. POINT 7 of the Residential Zone suitability analysis, creating a ring road parallel to the existing panchayat road is not desirable.

3.3.4. POINT 4 – This is the edge of the International Zone with a radial marking it. The issue here is the existence of the village of Bharatipuram, populated by people squatting on peramboke lands without ownership documents. This radial will invite further squatting, even by people who have access to land ownership, for opportunistic reasons of commerce to serve the International and Industrial Zones, hope of compensatory resettlement by Auroville and access to the business opportunities provided by the tourists and employees of Auroville.



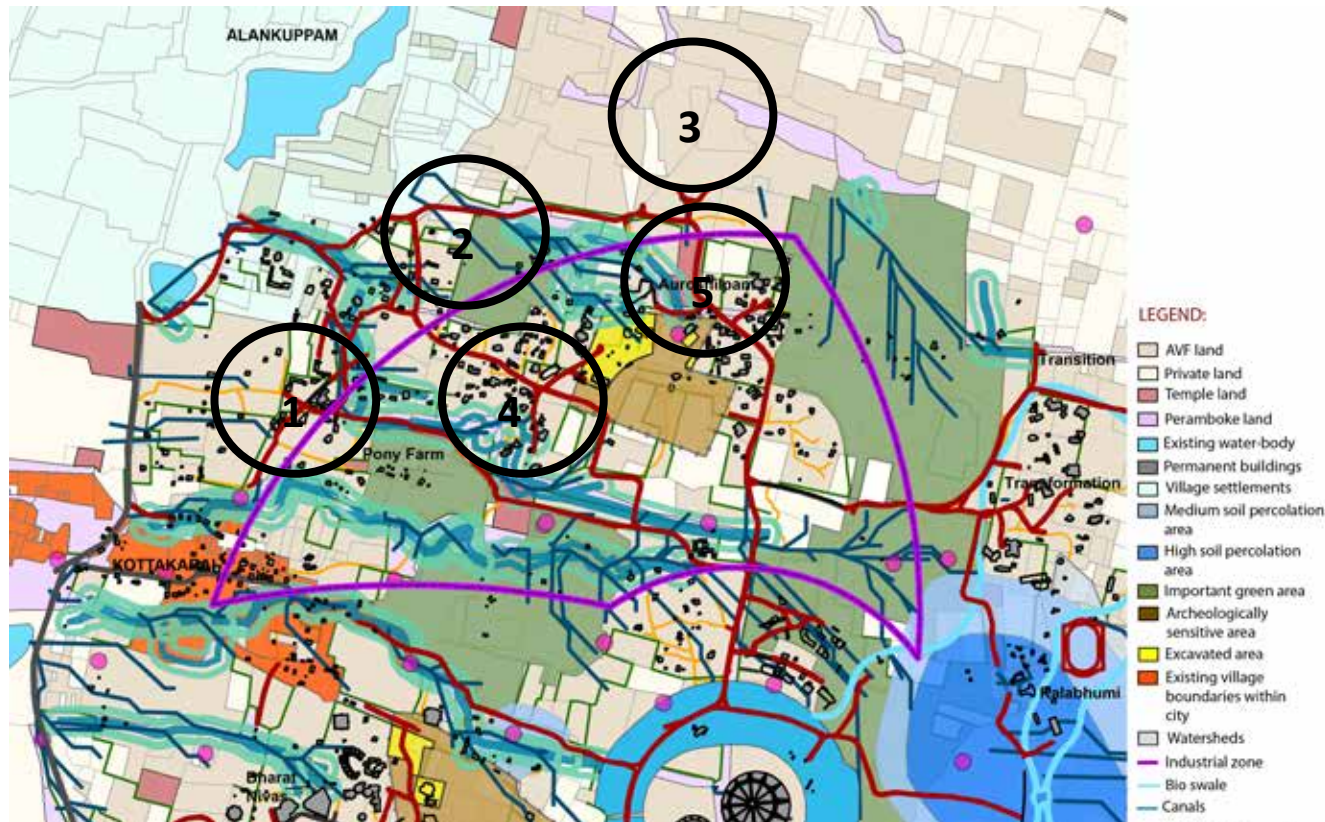
These points of conflict could be resolved without losing the overall layout of the sectors and their interrelation to the city by tweaking the following (refer to the map as an illustration to demonstrate an optional interpretation for the recommendations).

1- Avoid having the entry to the International Zone via sector 5 of the Residential Zone and integrate the forested area of Aurodam, which can be developed as a protected urban forest without bypass traffic.

2- Use the present access from the panchayat road as the main access with a distribution ring that connects to the crown to limit the movement of the visitors within the zone, while providing access to the various projects from this ring via spokes that are dead ends.

3- Integrate the present panchayat road as the outer ring road and zone the lands that lie alongside as low-impact development with designated locations for waterbodies/mixed forests to improve water percolation and landscaping by urban agriculture, including pasturelands and cows to build up soil fertility. The three farms in this area, Buddha Garden, Solitude and Moorty's farm, are well located to help incubate the urban agriculture for the institutional project. The farming – educational – institutional linkage is the most sustainable model for reducing carbon miles for the food served in the restaurants and kitchens in this zone.

4- Finally, it is inadvisable, for socio-political reasons, to have any type of road planned, drawn or even indicated as passing through, near or over the village of Bharatipuram, now or in the future, until there is a change of legislation on land-ownership and squatters' rights in India. Ideally, the land use of the plots around the village should be mixed use with institutional/residential/educational, consisting of vocational training/student and volunteer housing and small-scale manufacturing to have higher population density that would build a symbiotic relationship with the village. Refer to chapter 2 - 2.2.6.



3.4 Industrial Zone

Of the 1,212 acres that constitute the city area of Auroville, the Industrial Zone is about 251 acres or 20.70%, with 38.14 acres as canyons, forests and seasonal waterbodies as they are low-lying. An overlay of the master plan 2025 land use and road layout on the geophysical features of the land brings out five main issues besides several related ones (refer to the map).

3.4.1. POINT 1 – The location of the outer ring road and its intersection with the radial is in a low-lying area, and it is too close to the village of Bharatipuram/Kottakarai. This is an ideal location for water catchment with ponds and shelter belt plantation. The Industrial Zone is situated on the top of the watershed to the villages of Kottakarai and Allankuppam; waterbodies as land use would prevent encroachment without creating hard barriers that would need policing, which would be the best way forward for conflict prevention. Waterbodies are natural barriers, and given the soil type and

the natural gradient, the waterbody could become perennial in time. Again, the outer ring road should be merged with the panchayat road as mentioned previously in point 3.2.7. POINT 7 and 3.3.3. POINT 3.

3.4.2. POINT 2 – The access road for the Industrial Zone is indicated at this point in the master plan 2025. Of the three intersection points between the planned radials and the outer ring road, this would have the least collateral damage. The value of the land of Windarra as a natural farm should not be compromised, so the planning of this access road needs to be buffered with access control, security and a viable shelter belt that will create an edge situation between forest and farm to promote biodiversity of mammals, pollinators and birds. This will help buffer the entire strip along the panchayat road from the International Zone to Discipline farm.

3.4.3. POINT 3 – The planned outer ring road, as per the master plan 2025, that would link the Kulapalayam – Allankuppam villages to the north of Auroville would be strategically detrimental on many levels. This road would provide an easy and convenient bypass access from the East Coast Road to these villages. It will open up the land to the north to speculative sales by developers who want to tap into the commercial advantage of being on a link road, while being close to Auroville with lands in Puducherry territory, with a good water table without being too close to the villages.

Auroville's planning bodies, from the township to regional, should explore all venues to avoid any linkages to the north of the city and the green belt. This road will also destroy the integrity of Revelation



forest, Discipline farm and Fertile forest.

3.4.4. POINT 4 – As mentioned earlier, the Industrial Zone is on the top of the watershed of the village of Allankuppam, and the gully flow has created canyons over time that need to be buffered with shelter belt plantations with a minimum width of 25 metres to prevent further erosion and build up the percolation capacity and soil moisture. The development between the canyons should be non-intrusive by being zoned for functions that do not need extensive servicing, infrastructure, large building footprints and interference with the natural gradient of the surrounding land.

3.4.5. POINT 5 – This is an archaeologically sensitive area – refer to chapter 2- 2.2.5.- Archaeologically sensitive areas within the city.

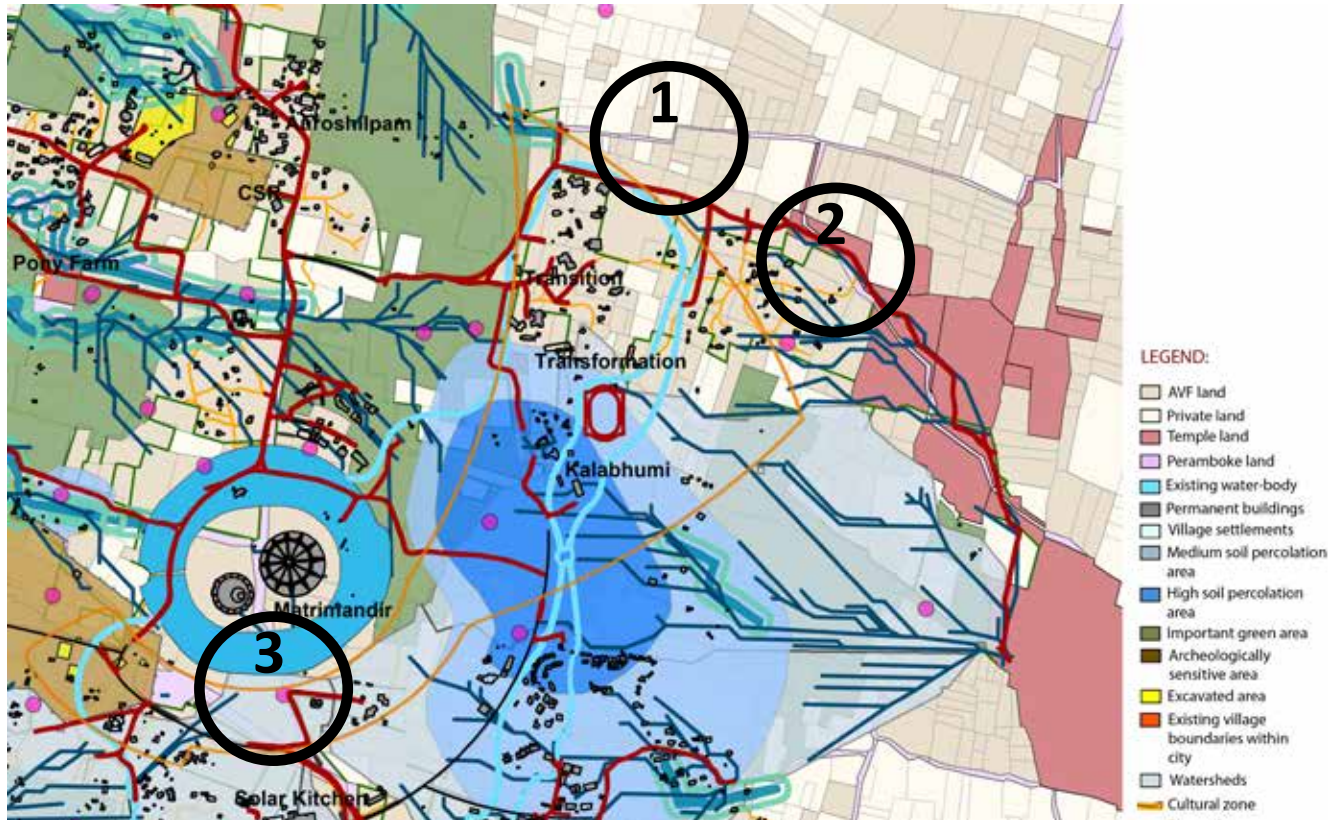
These points of conflict could be resolved without losing the overall layout of the sectors and their interrelation to the city by tweaking the following (refer to the map as an illustration to demonstrate an optional interpretation for the recommendations).

1- As mentioned in 3.2.7. POINT 7, 3.3.3. POINT 3 and 3.4.1. POINT 1, the outer ring road should be merged with the panchayat road from the Residential Zone to the village of Allankuppam.

2- Zone the lands bordering the canyons as buffer zones with a minimum width of 25 metres, and undertake shelter belt plantation at the earliest, so that when the development of nearby land is undertaken, Auroville will not have to undertake post-development remedial action for erosion from the increased non-permeable surfaces created.

3 - Zone the lands between the canyons for minimum and non-intrusive development.

4 - The lands beside the village of Bharatipuram/ Kottakarai should be zoned as outlined in recommendation -4- of the International Zone.



3.5 Cultural zone including educational belt

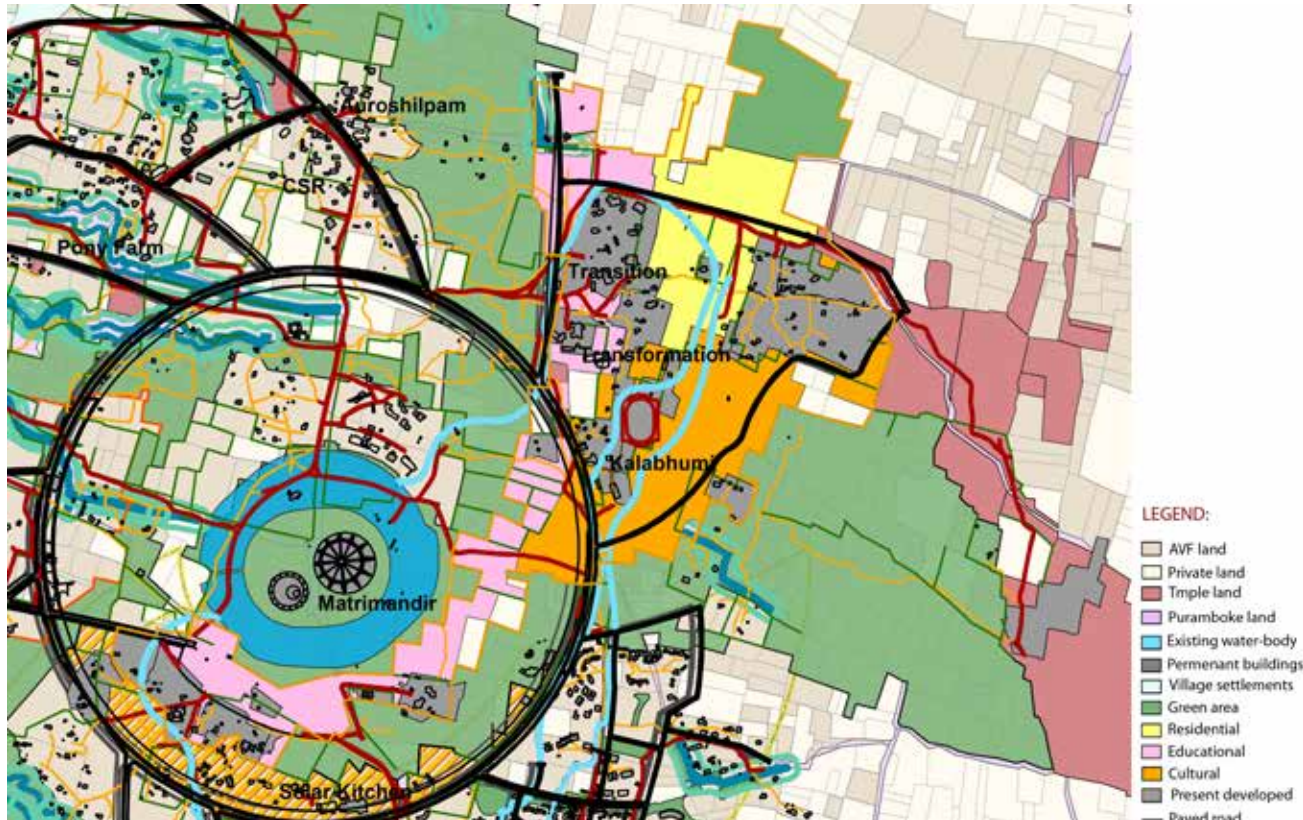
Of the 1,212 acres that constitute the city area of Auroville, the Cultural Zone, with its outshooting strip of the educational area, is about 246 acres or 20.29%, with 12.1 acres under forest cover, which is mostly connected to the forested areas of Fertile, Two Banyans and Samridhi. An overlay of the master plan 2025 land use and road layout on the geophysical features of the land brings out three main issues besides several related ones (refer to the map).

3.5.1. POINT 1 – The location of the radial bordering the Cultural Zone cuts through the forests of Revelation – Minati, destroying the edges of the forests. Forest edges are the most productive in terms of biodiversity as they provide shelter for the mammals, birds and insects that would use the open park for feeding without compromising on the security of their nesting zones. Additionally, given that roads are meant for movement of people, goods and services, it is not economical to make them in locations where they would be unutilized, as they will only serve singly loaded development, thus making the

maintenance of this infrastructure expensive for the city services.

3.5.2. POINT 2 – As previously stated in 3.2.7. POINT 7, 3.3.3. POINT 3 and 3.4.1. POINT 1, making a ring road that would allow for connectivity between the East Coast Road and Allankuppam village would be detrimental to the project of Auroville, especially a road that intersects with the paths coming from Bommayapalayam and the canyon road from Kulapalayam, creating a natural link for bypass traffic.

3.5.3. POINT 3 – While the exact nature of development of the educational strip between the Matrimandir and the crown along sectors 1-4 of the Residential Zone is not worked out in detail, the archaeological sites that fall within it should be taken into consideration, as referred to in chapter 2- 2.2.5.- Archaeologically sensitive areas within the city. It would be interesting to look at the nature of the functions that would be located here in close proximity to the Matrimandir and its lake.

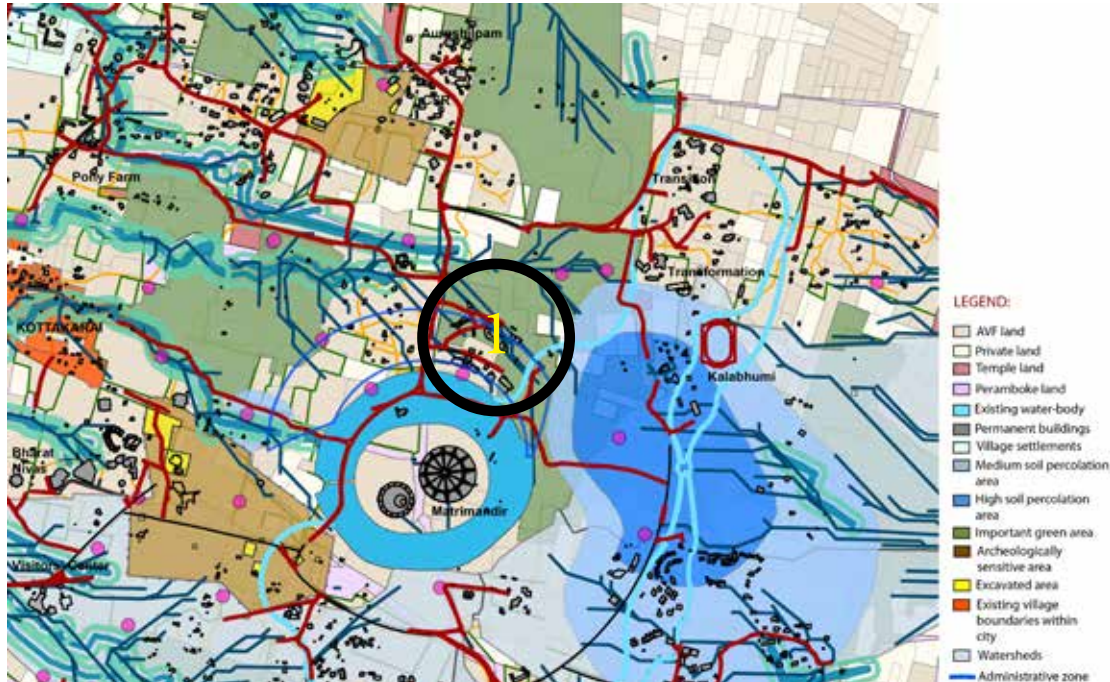


These points of conflict could be resolved without losing the overall layout of the sectors and their interrelation to the city by tweaking the following (refer to the map as an illustration to demonstrate an optional interpretation for the recommendations).

1- Move the radial near the Revelation – Minati forest, and convert it into an internal distributor within the educational campus backing on to the Revelation forest, making this area a protected area with limited access. This will also allow for special environmental educational opportunities for the students and residents. Urban green areas like parks, shelter belts and the edges in between are excellent for influencing the microclimate, reducing the heat island effect that makes most modern cities in the tropics uninhabitable without air conditioning as the night temperatures remain high due to the lack of this mix of forest with open green areas.

2- Zone the area towards Fertile – Bommayapalayam as mixed educational – residential development with hostels, fraternity houses and boarding schools, with an internal distributor that connects to the Residential Zone with low-impact traffic, allowing cross-pollination between the two zones to promote intensive use of the facilities created like sports fields/libraries/study halls/theatres.

3- As the educational zone is so close to the Matrimandir, plans should be detailed out to ensure that the projects in this proposed strip development have no activities that would create noise and light pollution or invite external traffic. The archaeological sites could be integrated with educational facilities, creating a unique opportunity of interaction between the residential-educational and International Zones.



3.6 Administrative cum habitat zone

Of the 1,212 acres that constitute the city area of Auroville, the administrative cum habitat zone is about 45 acres or 0.03%, with 20+ acres already developed with four office buildings and the rest as habitat. A logical analysis of the zones and their functions as per the master plan 2025 land use coupled with the road layout including the access to this administrative area (refer to point 1 on the attached map) raises some questions:

1- What functions are going to be located in this administrative belt? If this is meant to house the city municipality and allied functions, why is it placed across from the Residential Zone? Inevitably, this would create more traffic as people have to circle the Matrimandir lake and garden via either the International Zone or the Cultural Zone to access these administrative services.

2- Is housing the bureaucracy in the prime location with a lake view over the Matrimandir the best use of this space?

3- If it is not possible to tweak the location of the administrative zone to a more appropriate location in the city (switch with the educational zone?), the urban plan for this zone needs to be re-evaluated, bearing in mind the building orientation, open space between the buildings and access to the zone from the Residential and Cultural Zones. At the best of times, public administrative buildings are not the most inviting and efficient due to the nature of the work that needs to be done, but to have them west and south-west facing with maximum solar gain, and facing the water (high humidity due to evapotranspiration) with reflected glare, is going to invite high energy use to offset the discomfort caused by poor zoning within the climatic context.

Note - If you note any errors in language / information and / or maps, please email me at suhasini@auroville.org.in with the following

- chapter / page number where the error is
- the details of the error
- the revised version in your opinion

thanks- Suhasini

Introduction

Auroville will be 50 years in 2018 and it is imperative to change the pace of development to manifest the "international township" that the Mother envisaged. To be able to do this the residents of Auroville need to prepare Detailed Development Plans (DDP) with clear development priorities.

The Charter and the Vision for Auroville, as given by the Mother, form the foundation for development of Auroville. To manifest this vision, residents need to agree on the Terms of Reference (ToR) within a framework for a participatory planning methodology.

These Planning Principles are an extract from the draft Terms of Reference that has been compiled with references from historical studies and participatory processes spanning the last 15 years including the recent 'Sounding Boards'.

The planning areas focus on matters within the city area and green belt as defined in the Master Plan and on the land belonging to Auroville in the overall bio-region keeping in due consideration the needs of an integrated regional plan that facilitates co-development.

The Key Features of the Galaxy

The following key features of the Galaxy concept, as identified by Roger Anger and approved by the RA in February 2007, will define a general frame for the urban planning of Auroville:

- Search for beauty,
- 50,000 Aurovilians resident population,
- Four zones: Residential, Industrial, Cultural and International,
- Matrimandir with its' twelve gardens and the lake at the centre of the city,
- The Crown and the city centre,
- The Lines of Force that give the shape of the Galaxy,
- About 50% of the city area is green,
- Detailed city planning and development based on the master plan in a spirit of experimentation and innovation.

Planning Principles

1. Environment

The land use, development plans and strategies and urban planning should respond to:

- a) The topographical and geo-physical features of the site.
- b) Integration of existing woodlands in the planned green corridors and parks in a manner that ensures that Auroville becomes sustainable, regenerative and self supporting township.
- c) Integration and management of water, soil, food, waste and energy.
- d) Conservation and sharing of natural resources within the bio-region.
- e) Innovation and adoption of progressive strategies of planning and development.

2. Galaxy concept

- a) Matrimandir with gardens surrounded by an environmentally sustainable water body at the geographical centre of the town.
- b) 4 zones that would each pre-dominantly allow for the following functions and activities; economic/productive, residential, international and cultural. The zones would promote and allow mixed land use to the extent that it allows the core zone activity to be vibrant and sustainable.

- c) An inner boulevard or “crown” that links the 4 zones to effectively create a pedestrian realm to allow for the development of public services and research / recreational institutions.
- d) Roads - collector, distributor and links within the zones laid as far as possible in a radial fashion from the crown. The road size, width, location and traffic regulation will be according to the function and size of population to be serviced.
- e) Access and bypass roads will integrate and respond to existing/planned development: both within the urban limits of Auroville and its regional context. The functioning of these roads will promote the uniqueness of the project without alienating other users and activities.
- f) The inner city will be developed with activities, institutions and projects that are related to the adjacent zone and the Matrimandir. These activities, institutions and projects will be promoting the unifying character of the town from the 4 zones to the Matrimandir.

3. Urban planning and design

- a) Land use and urban development plans are aimed to ensure the developmental needs for an eventual resident population of 50,000 by ensuring space for phase-wise density built-up.
- b) Development will be incremental and in relation to the projected growth of the population and in accordance with the approved DDP's.
- c) The type, size and quality of the open spaces will be inter-related to the zone density, function, local geo-physical characteristics and environmental needs.
- d) The urban design controls of the buildings should adopt environmentally benign strategies for an ecologically responsive and energy efficient built environment.

4. Socio-economic

- a) The pace of growth of collective economic activities of Auroville should be strengthened and planned in a balanced manner among all the spheres such as residential, economic, educational, health, cultural and recreational.
- b) Development priority should be given to civic and public amenities that respond to the real needs of the residents, enhancing collective sharing and promoting activities and the development of zones, especially the industrial zone, that will help the city and its collective economy to become self-supportive.
- c) Cohesive socio-economic planning is key and beyond essential. Planning decision should take in consideration the pertinent policies related to education, economic development and social mobilization.
- d) Education, innovation and research is an integral part of the life, planning and development should consider these parameters on a priority basis.
- e) Cultural, recreational and sports activities needed for the evolving township, will be surveyed¹ and the facilities required will be assessed and developed, as and when required. Development of such facilities, will be balanced with the overall needs of a projected population over the next set number of years.

5. Bio-region

- a) The framework for regional planning needs to be developed in collaboration with the five panchayats in the AV Master Plan area along with the district authorities that is environmentally, socially and economically sustainable.
 - b) A shared policy for infrastructure, water, mobility, energy and waste management.
 - c) Auroville should engage in co-development programs with the villages that are multi-generational and gender sensitive; to build up a shared vision to promote inter-village collaboration.
-