

# Planning and Development of Antraj Village

Prof. Priya S. Deshmukh<sup>1</sup>, Nitin N. Khodake<sup>2</sup>, Mukesh N. Khodake<sup>3</sup>

<sup>1,2,3</sup> Dept of Civil Engineering

<sup>1,2,3</sup> STC, SPRT, Shegaon-444303

**Abstract-** The techniques of village planning means that to improve the geographical image of area and to fulfill the basic and essential needs of people in village without going to village or nearby city. We all group members select the ANTRAJ village Tahsil- Khamgaon, Buldana District. According to the 2011 census, the population of village is 3,610 and the area of village is 2729.64 hectare.

In this project we developing the village by authorizing the drainage water are carries out of the village i.e. these waste used for traditional agricultural method and tree plantation over the road solar tree plantation over the road. Solar tree are provide to absorb the sunlight as a source of energy to generate electricity. That's why the revenue of village increases these can be used for development as we suggested. The Grampanchayat Antraj sponsored our project.

**Keywords-** development, electricity, revenue, Antraj village.

## I. INTRODUCTION

The art and science of ordering the utilization of land and sitting of buildings and communication routes therefore on secure the most practicable degree of economy, convenience and beauty. An attempt to formulate the principles that ought to guide US in making a civilized physical background for human life whose main impetus is so foreseeing and guiding amendment.physical, social AND economic designing of an urban surroundings. It encompasses many alternative disciplines and brings all beneath one umbrella.

The simplest definition of urban designing is that it's the organization finds sealed streets that were set out at right angles in a very grid pattern. the concept of a prepared geographic region evolved as completely different civilizations adopted it.

In the village Antraj Tahsil- Khamgaon, Buldana District. According to the 2011 census, the population of village is 3,610 and the area of village is 2729.64 hectare .In these project us developing the village by using the sewage water and make the fertilizers from it and these fertilizers can be used in the agriculture. And tree plantation over the road and two main hilly area of the town. Solar tree plantation over

the road for the generation of electricity and this electricity is use for lighting purpose. Some area is developed aesthetically pleasing atmosphere. Constructing the complexes in the main area of the village at govt. plot, that's why the revenue of village increases and bank and hospital is also provided for social use to the villager's these can be used for development as we suggested.

## II. ABOUT ANTRAJ VILLAGE

The Antraj village is found within the state Maharashtra having state code twenty seven and having the village code 528855. The Buldana is that the district of this village with district code five hundred. the entire region within which this village is dilated in 2729.64 hectares / twenty seven.2964 sq. Kilometers (km2) / 6745.0873346805 acres.

**Antraj Village summary:.**

Grampunchayet	Antraj
Block/Tehsil	Khamgaon
District	Buldana
State	Maharashtra
Pincode	444303
Area	2729.64hectares
Population	three,610
Households	793

Nearest city: Khamgaon (13 km) LocationDetails:- The Antraj village is placed within the Buldana district with district code range five hundred. Khamgaon is that the sub district (tehsil) may be a low-level territorial division of a section, of this village, having the sub district code is 03981. Khamgaon is that the Community Development Block (C.D. Block) of this village with C.D. Block code range 0032. Khamgaon is that the Sub-district headquarters of this village and it's placed thirteen kilometers far from this village. The district headquarters' name is Buldana and as per distance concern it's sixty kilometers from the Antraj village.

➤ Nearest Town:-

Khamgaon is the nearest statutory town of the village Antraj, which is 13 kilometers away from the village.

### III. OBJECTIVES OF TOWN PLANNING

- To produce and promote healthy conditions and environments for all the social, economic, cultural and recreational amenities etc.
- To preserve the individuality of the city individuals to preserve the aesthetics in city.
- To create right use of the land for the proper purpose by partition etc.
- Recreational amenities - open areas, parks, gardens & playgrounds, city halls stadiums community arrainging the look } of all parts of city or town plan.
- To guarantee orderly development.
- To avoid encroach.

### IV. NECESSITY OF VILLAGE PLANNING

The necessity of village planning can very well be appreciated by mentioning the evil situations which a village has to face in the absence of village planning. They are as follows:

- Defective road system resulting in the formation of narrow streets and lanes:-  
Defective road system is a problem in most countries. It is due to the fact that villages and cities were never planned. They gradually grew with the help of the developers which resulted in bad road network giving rise to bad transportation network.
- Development of slums and squatter settlements:-  
If land use is not regulated efficiently, it will result in the formation of slums and squatter settlements which will eventually degrade the quality of the life of the citizens.
- Inadequate open spaces for parks and playgrounds resulting in unhealthy living conditions:-  
This is one big problem in cities. It is very hard to find open spaces in cities. If there are open spaces, they are later on used up for designing more houses and constructing more buildings. This is more common in metropolitan cities and mega cities across the world.
- Lack of essential amenities like electricity, water supply and drainage:-  
If planning is not done and villages and cities are left to grow on their own, it results in lack of efficient network of amenities like electricity, water supply, sewerage and drainage systems. This results into degraded quality of life.
- Unhealthy living conditions:-  
All the above factors mentioned lead to unhealthy living conditions which can be avoided if we give enough emphasis to planning.

### V.PLANNING PROCESS

Identification & definition of drawback shaping the objectives Data assortment. To regulate growth, to nullify the dangerous effects of past growth, to enhance the transportation facilities, to optimize the resources utilization, to balance population and economic activities, to push social integration among completely different classes, to push a convenient snug, stunning and healthy surroundings. Identification of trend and direction of growth, Traffic. Information analysis foretelling survey, Study on sociology, Climate, Resources and alternative potentials within the kind of study maps, graphs, charts, etc. and long demographic projection supported migration, employment, and urbanization.

-Fixing The Priorities style. Term short term objectives area unit known Preparation of development plans, formulation of zones, and alteration to the present segmentation laws, widening of roads etc. Identification of priorities supported the requirement, importance and urgency Implementation by the acceptable authorities among time.

-Implementation Review, analysis & Feedback satisfy all the specified obligations watching by periodical inspections, feedbacks &review reports.

### VI. DIFFERENT TYPES OF PLANS

I. Structural Plan:-A Structural arrange is one that singles out for attention of bound side of the surroundings typically the land uses ,the main movement systems and therefore the location of important facilities and buildings. Such an inspiration aims to influence bound key line of work selections whereas recognizing that there square measure several alternative things that can't and maybe shouldn't be determined at the commencement.

II. Comprehensive Plan:-the great arrange seeks to mix in one document the prescriptions for all aspects of town development. It includes Associate in nursing analysis of the city's economy. Its demographic characteristics and history of its abstraction development as a preface to arrange for a way town ought to evolve over twenty year's amount.

III.Biological process plan:-suggests that an inspiration for the event or re-development or improvement of the realm inside jurisdiction of a coming up with authority.It includes a regional arrange, careful development plan, and a replacement city development arrange.

### VII. ZONING

The local governments in developed countries designated permitted uses of land based on mapped zones. The mapped zones help in separating one set of land uses from another. This land use of planning is called zoning.

Zoning is used to specify the use of land and is called functional zoning. It is also used to regulate the height of the buildings.

A village is divided into different zones such as:

- Residential zone (housing)
- Commercial zone (retail/wholesale, shops/malls – anything related to commerce)
- Industrial zone (Industries/factories)
- Recreational zone (Parks/Playgrounds/spaces for recreational activities)
- Mixed use zone (Commercial + Residential)

All of the above mentioned zones from their specify type of usage.

### VIII. TREE PLANTATION

Tree planting could be a method of transplantation tree seeding, typically for biological science land reclamation, or landscaping purpose. It differs from the transplantation of larger trees in tree farming, and from lower value however slower and fewer reliable distributions of tree seeds. In forestry the activity is understood as re-forestation or a forestation, reckoning on whether or not the world being planted has or has not recently been wooded. It involves planting seeding over a vicinity of land wherever the forest has been harvested or broken by hearth, sickness or act, tree plantation is disbursed in dissentent many alternative components of the planet and methods might differ wide across nations and regions' and among individual re-forestation corporations. Tree planting is grounded in forest science and if performed properly may end up within the triple-crown regeneration of a deforested space. Re-forestation is that the business work industry's answer to the massive scale destruction of virgin forest forests however a planted forest seldom replicates the diversity and complexness of a natural forest. As a result of trees take away greenhouse emission the air as they grow tree planting are often used as geo-engineering technique to get rid of greenhouse emission from the atmosphere. Desert greening project also actuated by improved diversity and reclamation of natural water systems however also improved economy and welfare attributable to accrued variety of job in farming and biological science.

### IX SOLAR

#### I. Solar panels

Solar panels absorb the daylight as a supply of energy to get electricity. An electrical phenomenon (PV) module may be a prepacked connects assembly of generally electrical phenomenon star cells. Electrical phenomenon modules represent the electrical phenomenon array of a electrical phenomenon system that generates and provides star electricity in industrial and residential applications. Every module is rated by its DC output power underneath commonplace check conditions (STC), and generally ranges from one hundred to 365 Watts (W).

The potency of a module determines the realm of a module given an equivalent rated output – Associate in Nursing 8 May 1945 economical 230 W modules can have doubly the realm of a 16 PF economical 230 W module. There are a unit some commercially on the market star modules that exceed potency of twenty-two and reportedly additionally extraordinary pure gold. One star module will manufacture solely a restricted quantity of power; most installations contain multiple modules. An electrical phenomenon system generally includes Associate in nursing array of electrical phenomenon modules, Associate in Nursing electrical converter, A battery pack for storage, interconnection wiring, and optionally a star chase mechanism.

#### II. Theory and construction

The majority of modules use wafer-based crystalline Si cells or thin-film cells. The structural (load carrying) member of a module will either be the highest layer or the rear layer. Cells should even be protected against mechanical injury and wet. Most modules square measure rigid, however semi-flexible ones square measure obtainable, supported thin-film cells. The cells should be connected electrically nonparallel, one to a different. Externally, most of electrical phenomenon modules use connectors sort to facilitate straightforward weatherproof connections to the remainder of the system. Modules electrical connections square measure created nonparallel to attain a desired output voltage or in parallel to produce a desired current capability. The conducting wires that take this off the modules might contain silver, copper or alternative non-magnetic conductive transition metals. Bypass diodes could also be incorporated or used outwardly, just in case of partial module shading, to maximize the output of module sections still well-lighted. Some special star PV modules embrace concentrators within which light-weight is targeted by lenses or mirrors onto smaller cells. This allows the employment of cells with a high

value per unit space (such as Ga arsenide) during a cost-efficient approach.

### III. Efficiencies

Depending on construction, electrical phenomenon modules will manufacture electricity from a spread of frequencies of sunshine, however typically cannot cover the whole star vary (specifically, ultraviolet, infrared and low or subtle light). Hence, abundant of the incident daylight energy is wasted by star modules, and that they will offer so much higher efficiencies if light with monochromatic lightweight. Therefore, another style construct is to separate the sunshine into totally completely different wavelength ranges and direct the beams onto different cells tuned to those ranges. This has been projected to be capable of raising potency by five hundredth.

### IV. Applications

1. It can first be used in agriculture as a power source for irrigation.
2. In health care solar panels can be used to refrigerate medical supplies.
3. It can also be used for infrastructure.
4. PV modules are used in photovoltaic systems and include a large variety of electric devices.

## X. SEWAGE WATER USE FOR AGRICULTURE

### X.I. Sewage farm use

Sewage for irrigation and fertilizing agricultural land. The apply is common in heat, arid climates wherever irrigation is effective whereas sources of H<sub>2</sub>O area unit scarce. Suspended solids could also be regenerate to humans by microbes and microorganism so as to produce gas, phosphorus and alternative plant nutrients for crop growth. Several industrialized nations have enforced standard waste treatment to cut back vector and odor downside. For water reclamation and use of bio solids, however waste farming remains Associate in nursing choice for developing countries.

### X.II. Advantages

Sewage farming permits use for irrigation of water which could well be wasted a number of the nutrients and organic solids in effluent will be usefully incorporated into soil and agricultural product instead of fouling natural aquatic environments pumping to the purpose of application could also be the sole demand if the village isn't at the next elevation than the waste material farms.

### X.III. Disadvantages

Polluted runoff could occur from waste material irrigation of fields once coming into waste material and precipitation exceed evaporation and percolation capability. Sewage is typically generated at a comparatively constant rate, however irrigation is needed solely throughout dry weather and is beneficial solely whereas temperatures are high enough to market plant growth. Over irrigation causes solids to become septic, bitter or sewage-sick. Arid climates could permit temporary storage of waste material in holding pounds. Whereas the soils dry out throughout non-growing seasons, however such storage could cause odor and aquatic insect issues as well as mosquitoes. Throughout the economic revolution sanitary sewer systems were designed. These used a network of pipes and pumps to move waste material on the far side the town boundaries to massive rented grasslands, into that the waste material trickled down. Berlin once operated twenty waste material farms occupying concerning ten, 000 hectares.

Example:-

A small-scale example a farm exists at metropolis two hundred, wherever water fouled with elephant dropping and piss is filtered through a reed bed Western treatment plant in Melbourne.

## XI. BENEFITS OF VILLAGE PLANNING

Village designing may be a follow that's involved with the management of land in a correct setting. Village designing involves analysis, research, strategic thinking, policy recommendations and implementation.

-Promotes security Village planners typically need to contemplate threats like storm surges and floods once designing resources inside a village. Extreme weather or different kinds of emergencies like fireplace need to be thought-about to make evacuation routes inside the village. These are typically retiring and cheap and plenty of individuals contemplate them as rational cautions for any village. By designing for safety options like retentive walls, shelters and levees, village designing helps to extend the protection and safety of the population.

-Increases attractiveness Cities are planned by considering the aesthetics. Planners enhance the attractiveness of a village through applying numerous tools like growth management and sectionalisation to manage land use. traditionally, most of the villages currently seen because the most engaging are the result of long lasting land systems of steerage and prohibitions

regarding uses, options and building sizes.  
 -Prevents slum development Rapid urbanization has resulted within the formation of slums in major cities everywhere the planet, particularly in developing nations. Village designing methods are important as they assist to forestall the event of slums. In such eventualities, cheaper housing choices could also be given to forestall the necessity to make slums.

-Promotes renewal Village designing additionally promotes renewal and reconstruction. This is often clear in cities ruined by fire or war. Planners will aim to revive basic infrastructure like water, sewerage and power. Historic, social and spiritual centers may also be preserved within the new village set up.

## **XII. DISADVANTAGES**

- Rigidity
- Misdirected planning
- Time Consuming
- Probability in planning
- False sense of security
- Expensive

## **XIII. CONCLUSION**

In this way we have studied about village planning and its importance for developing well villages and maximum utilization of land in proper way so that people can live life for noble end.

By providing an eco-friendly nature to the village and by constructing complex the village (Grampanchayat) could be earn the money from it, also constructing a Bank and Hospital for the social use of people.

## **REFERENCES**

- [1] <http://www.villageplanning/wiki/>.
- [2] "SunPower e20 Module".
- [3] <http://www.solarpowerworldonline.com/2013/05/what-are-solar-panels-made-of/>
- [4] "welsh history Review-vol.14,nos.1-4 1988-89 Merthyr Tydfil in the mid-Nineteenth Century:the struggle for public health"
- [5] "Plant-it 2020
- [6] "Plant-A-Tree" program USDA Forest Service