The concept of sustainable development is first popularized by Bruntland commission in 1987. The commissions report stressed the need for a style of economic development capable of meeting basic needs of developing countries population, while maintaining its stock of natural resources so as not to rob future generations for their use. The concept of sustainable development is not only development which will conserve our resources and not destroy them. Sustainable development is important because it is a development for all. The practical application of sustainable policy should be less resource consuming, resource damaging and resource destroying. The concept of sustainable development has three inter-related components.

1. A healthy growing economy
2. To commitment to social equality
3. Protection of environment

The major goals of sustainable development are

a) Restoration of fast ecological damage.

b) Protection of country from the damage as a consequence of future development.

c) Successful management of resources to satisfy changing human needs.

d) Conservation of natural resources.

e) To maintain the production at levels necessary to meet the increasing needs and aspirations of an expanding world population without degrading the environment.

f) To establish growing economy and increase economic efficiency.
g) A commitment to social equality and justice.

h) To create ecological harmony, enhancing development for all.

i) Control of pollution and damage to environment.

j) To reduce gap between rich and poor.

k) To encourage use of renewable resources.

l) To introduce a new development model in which there will not be any kind of exploitation and

m) To provide the inputs for a renewed search for multilateral solutions and restructured economic development.

As the rural and urban population is growing the basic needs of people like food, shelter, water, energy, clothing, employment, education, health and other services are also increasing. Societies in developing countries have to justify aspirations to progress to the basic needs, well being, consumption and affluence. To full-fill the material needs, consumption patterns and expectations there is necessity and inviolability of development and progression. Development depends upon the available natural resources and environment. However there is over exploitation of natural resources and environment in the name of development which deteriorate the holistic integrity of earth sustainable characteristics and potential capability endangering the very survival of all lives on this planet. Therefore, the sustainable growth, development and policy strategies of passing on the resources base intact over the future generations are needed. Sustainable development is widely used in its applications to rural and urban land use studies, forestry, water, air and noise pollution control, industry, energy and human resources.
The projected population of Hindupur Municipality is estimated to be 1,63,000 in 2011, 2,14,639 in 2021, 2,81,177 in 2031, 3,79,589 in 2041 and 5,16,241 in 2051. The available land in the Hindupur Municipality is 3816 hectares. The existing land is sufficient up to 2041 if the density of population is 100 persons per hectare. In 2051 the total land required will be 5,162 hectares.

**LAND REQUIREMENT FOR RESIDENTIAL USE**

If overall density is 125 persons per hectare the land requirement for residential use is 1310 hectares in 2011, 1717 hectares in 2021, 2249 hectares in 2031, 3037 hectares in 2041 and 4130 hectares in 2051. As there is sufficient agriculture and vacant land in Hindupur Municipality, the land requirement for residential use is sufficient up to 2041. The municipality has to plan expansion of planned residential area in the western, southwestern, northwestern and southeastern parts of the Hindupur Municipality.

**LAND REQUIREMENT FOR COMMERCIAL USE**

The total number of workers in trade and commercial activity are estimated to be 8420 in 2001. The number of workers in this category will be about 10,270 in 2011. The projected workers will be 12,221 in 2021, 14,665 in 2031, 17,598 in 2041 and 21,118 in 2051. The existing land for commercial activity is 100 hectares in 2009. The land requirement for this activity is worked out at the standard of one hundred workers for gross hectare. The requirement of land for commercial activities is 103 hectares in 2011, 122 hectares in 2021, 147 hectares in 2031, 176 hectares in 2041 and 211 hectares in 2051.
LAND REQUIREMENT FOR INDUSTRIAL USE

The industrial working force in Hindupur Municipality is about 5820 in 2001. It is estimated that the projected industrial workers will be 6,847 in 2011, 7,874 in 2021, 9,055 in 2031, 10,413 in 2041 and 11,975 in 2051, provided new industrial activities emerge. The existing land for industrial use is 90 hectares in 2001. The requirement of land for industrial use is 104 hectares in 2011, 120 hectares in 2021, 144 hectares in 2031, 174 hectares in 2041 and 210 hectares in 2051.

LAND REQUIREMENT FOR RECREATIONAL USE

A standard of 0.6 hectares is the developable area for 1000 population for recreational and public use. The existing land use is 30 hectares in 2001. The actual required land is 75 hectares in 2001 for recreational use. There is a shortage of 45 hectares. The land required for recreational use in 2011 will be 98 hectares, 129 hectares in 2021, 169 hectares in 2031, 228 hectares in 2041 and 310 hectares in 2051. The Hindupur Municipality should allocate the required land for development of recreational uses.

LAND REQUIREMENT FOR PUBLIC AND SEMI-PUBLIC OFFICES USE

The land available for public and semi-public is about 100 hectares in 2001. It is estimated that the land requirement for public and semi-public offices use will be about 120 hectares in 2011, 144 hectares in 2021, 173 hectares in 2031, 208 hectares in 2041 and 250 hectares in 2051.

LAND REQUIREMENT FOR TRANSPORT AND COMMUNICATIONS USE

The land available for transport and communications in 2001 is 200 hectares. By 2011 it is estimated that the land required for transport and communications is about 320 hectares. In 2021 the land required for transport and communications will
localities and in alternate days in some other localities. There are about 16 elevated service reservoirs (ELSR), four ground level service reservoirs (GLSR), 26 cisterns, 14 pump and sump houses, 182 functioning bore wells, 1200 public taps, 7524 house service connections, 1713 below poverty line house service connections and 102 commercial tap connections. The daily water requirement in 2001 is 12.5 MLD. By 2011 the water requirement is 16.338 MLD. In 2021 the water requirement for Hindupur Municipality is 21.46 MLD. In 2031 the water requirement is 28.17 MLD, in 2041 it is 37.95 MLD and by 2051 the water requirement is 51.62 MLD. The Hindupur Municipality has to double the required municipal water supply by 2021 and treble by 2041 and four times by 2051. There is going to be an acute water shortage in Hindupur Municipality despite the newly commissioned Sri Neelakantapuram SriRama Reddy Water Supply Scheme from Penna Ahobilam Balancing Reservoir. Therefore the Hindupur Municipal authorities have to lay plans for bringing water to the municipality from the surrounding reservoirs.

DRAINAGE

There is open drainage system with 215 pucca drains, 23 kuchha drains and eight storm water drains. In view of discharge of sewage water into open drains, there is over flow and stagnation of sewage water due to obstructions by the disposal of polythene covers. Mosquitoes breeding are very high in the open drain system leading to health hazards. There is a connecting canal between the Penna River and Kotnur tank to store the excess flood water discharged in the river during monsoon season. It is observed this canal is dry through out the year in view of low rainfall and frequent droughts. This canal is being used now for discharge of sewage water. A comprehensive under ground drainage system has to be planned in the Hindupur Municipality in different phases to avoid the drainage problems.
DEVELOPMENT OF COMMERCIAL CENTERS

As the Hindupur Municipality is growing rapidly there is a need for development of commercial centers along the major roads of Penukonda road, Bangalore road, Lepakshi road, Parigi road and main bazaar area, china market area, old bus stand area and new bus stand area. There is one separate market for sale of mulberry cocoons on the bypass road near the new RTC bus stand. Hindupur is known for commercial business of tamarind, jaggery and dry chillies. The municipality should provide separate market areas for these three products for day to day transactions in the municipal area. There should be at least one marketing center for every 10,000 population. Hindupur Municipality has to develop about fifteen marketing centers distributed all over the municipal area in different wards for business purposes.

THE DEVELOPMENT OF PARKS AND PLAY GROUNDS

There are no well organized parks in the Hindupur Municipality except a few small parks. Recreational parks are not found in the Hindupur Municipality. There should be at least one recreational park for every 10,000 population Hindupur Municipality has to develop about fifteen parks distributed all over the areas of the Hindupur Municipality. There is only one play ground with indoor stadium near M.G.M High School. Such play grounds have to be developed for every 10,000 population.

DEVELOPMENT OF NEW ROADS

The major roads of Hindupur Municipality are over loaded with heavy and light vehicles, trucks, cars, auto rickshaws and motor cycles. They are flying on Bangalore road, Penukonda road, Lepakshi road and Parigi road, Chinna market area
and main bazaar area. There are only two 25 meter double roads in Hindupur Municipality. One road leading from old bus stand to Parigi road and another road between main bazaar and new RTC bus stand. One bypass road has been proposed and partially completed. Majority of the roads are narrow and less than five meters width. The first step that Hindupur Municipality has to take up is widening of roads along the Main bazaar, China market area, Dhanalakshmi Road, Mukkidipeta and Abadpeta. The bypass road connecting Penukonda and Bangalore roads should be completed as early as possible to reduce the congestion in the core area of the Hindupur Municipality.

DEVELOPMENT OF SLUMS

There are about 42 notified slums with a total population of 42,024 in 2001. It amounts to 33.60% of the total population in 2001. By 2011 it is estimated that the slum population would be around 65,538. By 2021 it would be around 81,563. In 2031 it is estimated that the slum population would be around 1,06,847. By 2041 the slum population would be around 1,36,652 and by 2051 it would be around 2,00,000. By 2021 the slum population would be doubled, trebled by 2041 and increased by four times by 2051. Therefore the Hindupur Municipality has to take appropriate measures for providing housing, water, ventilation, lighting, sanitation, drainage and waste disposal facilities to the urban slum dwellers. The Government of India and Andhra Pradesh have envisaged development programs for urban poor for providing housing, water, sanitation, lighting, drainage and waste disposal. With the available funds the slum areas have to be developed by the Hindupur Municipal authorities.
DEVELOPMENT OF GREEN BELTS

The Government of India has proposed a minimum of five hectares of green belt development for every 10,000 population. The Hindupur Municipality has to develop about 125 hectares of green belts in 2001. There are no such green belts developed by the Hindupur Municipality except the private agriculture lands covered with green trees. The requirement of area for development green belts is about 164 hectares in 2011, 215 hectares in 2021, 281 hectares in 2031, 380 hectares in 2041 and 516 hectares in 2051. These belts can be developed along the major banks of the Penna River, tanks and specified areas distributed all over the municipal area. The Ministry of Environment and Forest Resources and the National Waste Land Development Board of Government of India are providing financial support to develop green belts in the urban areas. The Hindupur Municipality authorities should send proposals for financial support to develop green belts in the municipal area.