Introduction:

Most developing countries face different resource and infrastructural constraints that limit their economic growth. Nutritional deficiencies, poor environmental conditions, and inadequate educational infrastructure hamper children’s learning, which is critical for the future supply of skilled labor and hence for economic development. There is a need to assign priorities for resource allocation among nutritional, health-care, and educational policies.

It is estimated that more than 1 billion people in the world are infected by soil-transmitted helminthes (STH) (*Ascaris lumbricoides*, *Trichuris trichiura* and hook-worm). These infections affect most frequently children in developing countries and are associated with poor growth, reduced physical activity and impaired learning ability. Infection can only be definitely controlled by improvement in sanitation and living conditions, but in the short term these measures can scarcely be implemented due to lack of resources. Periodic treatment of the endemic population with a broad spectrum anti-helminthic drug has been advocated as a cheap and effective means of reducing the worm burden and its related morbidity.

The World Health Organization (WHO) recommends a baseline survey in schoolchildren to determine the prevalence and intensity of infections. Treatment should then be given according to the results of the survey. The whole population should be treated in case of high prevalence and intensity, targeted treatment is preferred in case of high prevalence and low intensity, whilst case management is the option of choice in case of low prevalence and intensity. The disease burden is mainly manifested as nutritional stress and associated with poor appetite, food in digestion and mal absorption, impaired growth and anemia. Anemia, malnutrition and STH infections are prevalent throughout the developing nations of the world. They often occur synergistically in areas of low socioeconomic status, where they constitute a major public health problem especially among children of school age. The highest prevalence of malnutrition in the world occurs in Asia where about 70% of all the children are malnourished. An estimated 30% of the world’s total population is anemic (WHO, 2001). In East Asia, nearly 50% of all the school age children are anemic. The burden of STH infections is associated with anemia and micronutrient deficiencies such as iron, vitamins and foliate. This leads to reduced work capacity, poor cognitive function and pregnancy disorders.

Anemia and malnutrition increase the risk and severity of infections among the affected individuals and hence, are major causes of death especially among children and pregnant women. The synergistic occurrence of helminthiasis, anemia and malnutrition exert a negative effect on growth and development of the affected person. The four most common
STHs are roundworm (*Ascaris lumbricoides*), whipworm (*Trichuris trichiura*), and the anthropophilic hookworms (*Necator americanus* and *Ancylostoma duodenale*). Recent estimates suggest that *A. lumbricoides* infects 1.221 billion people, *T. trichiura* 795 million, and hookworms 740 million. The greatest numbers of STH infections occur in the Americas, China and East Asia, and Sub-Saharan Africa. *Strongyloides stercoralis* is also a common STH in some of these regions, although detailed information on the prevalence of strongyloidiasis is lacking because of the difficulties in diagnosing human infection. The life cycles of *Ascaris*, *Trichuris*, and hookworm follow a general pattern. The adult parasite stages inhabit the gastrointestinal tract (*Ascaris* and hookworm in the small intestine; *Trichuris* in the colon), reproduce sexually, and produce eggs, which are passed in human feces and deposited in the external environment. STH infections rarely cause death. Instead, the burden of disease is related less to mortality than to the chronic and insidious effects on the hosts' health and nutritional status.

Hookworms have long been recognized as an important cause of intestinal blood loss leading to iron deficiency and protein malnutrition. The iron deficiency anemia that accompanies moderate and heavy hookworm burdens is sometimes referred to as hookworm disease. When host iron stores are depleted, the extent of iron deficiency anemia is linearly related to the intensity of hookworm infection. Because of their underlying poor iron status, children, women of reproductive age, and pregnant women are frequently the ones most susceptible to developing hookworm anemia. Iron deficiency anemia during pregnancy has been linked to adverse maternal-fetal consequences, including prematurity, low birth-weight, and impaired lactation.

Soil-transmitted helminthes refer to the intestinal worms infecting humans that are transmitted through contaminated soil ("helminthes" means parasitic worm): *Ascaris lumbricoides* (sometimes called just "Ascaris"), whipworm (*Trichuris trichiura*), and hookworm (*Ancylostoma duodenale* and *Necator americanus*). A large part of the world's population is infected with one or more of these soil-transmitted helminthes.

Nandurbar district is located in Maharashtra (India), it comprises six tehsils and most of people are from tribal communities such as Bhil, Pawara, Dhanka, Kokani and Mavachi. These people are not aware about health and suffering from various diseases and soil-transmitted helminthes is one of them.