3.1. Introduction:

The present study is made on the health and hygiene of the people with special reference to Nirmal Bharat Abhiyan. As such information on the health of rural people, hygienic environment in rural areas, sanitation facilities, toilets, latrine facilities, benefits gained from sanitation programmes, etc are essentially needed. The literature is not available covering all the aspects. Hence the researcher searched the relevant literature on certain keywords which are able to fulfill the information requirements of the research project. To collect the relevant literature, the researcher searched various Journals and other publications such as books in the sociology, social work, rural development, rural sanitation, rural health, hygiene in villages and other related subject disciplines on the following keywords:

- Health of rural people;
- Hygiene in villages;
- Sanitation facilities in rural areas;
- Health facilities available in villages;
- The availability of toilets and latrines in villages;
- Sanitation programmes such as Total Sanitation Campaign or Nirmal Bharat Abhiyan.

The collected literature on the above said keywords is discussed and reviewed as under to find out the research gap.
3.2. Review of Literature:

Many of the research papers published in journals proved to be significant for the present study and only a few books are found useful for the present study. The collected secondary literature is reviewed as under.

Sharma and Dhawan (1986) writes on “Health Problems of Rural Women’ in ‘Health and Population: Perspectives and Issues’. The study was conducted in two villages of Hisar district (Haryana) to determine the nature and extent of health problems of rural women. The data were collected from one hundred randomly selected rural ladies by interviewing them with the help of an interview schedule developed for the purpose. The identified health problems were classified. The findings of the study indicated the prevalence of a number of health problems among rural women and a need was felt for their education on health aspects. A sizeable number of them were found to have suffered from bronchitis, coryza, indigestion, constipation, diarrhea, conjunctivitis, dandruff, tartar deposits on teeth, skin diseases, gynecological diseases and some other diseases like rheumatism, arthritis, etc. The existence of a government hospital in village had no association of significant level with the health problems of rural women. Majority of the respondents perceived the treatment given in government hospital to be not effective and several other constraints in availing of the treatment facilities.

Amitabh Kundu (1991) published on “Micro Environment in Urban Planning Access of Poor to Water Supply and Sanitation” in ‘Economic & Political Weekly’. Environmental degradation poses problems for urban populations both at the macro as well as micro levels. The macro problems, that affect the entire population in a city, are of late receiving attention from academics and policy-makers. It has generally been held that the poor are not interested in resolving macro level problems of the environment. While this is certainly not true, it is a fact that micro level problems, such as access to water
and sanitation are more immediate and specific problems for the urban poor. This paper attempts to examine the nature and magnitude of disparity in the access to water supply and sanitation of people in different levels of consumption expenditure in urban areas.

As stated by Ashish Bose (2000) in their paper “Reaching the Unreached in Uttarakhand Demography, Drinking Water and Technology” published in ‘Economic & Political Weekly’, the basic problem in the Uttarakhand region is the hilly terrain and the absence of a transportation network, making access to basic needs like water and sanitation, primary health care and education almost impossible on a universal basis. The unreached have to be reached.

Behera and Ratna Reddy (2002) writes on “Environment and Accountability Impact of Industrial Pollution on Rural Communities Environment and Accountability Impact of Industrial Pollution on Rural Communities” in ‘Economic & Political Weekly’. While there are several empirical studies on agriculture-related environmental problems, such as soil degradation and wind and water erosion, only a few studies have dealt with environmental problems in the agricultural sector due to industrial pollution. The difference is that the first sets of problems are intra-sectoral while the second is inter-sectoral. This paper attempts to study the environmental impact of water pollution on rural communities in general and on agricultural production, human health and livestock in particular. Some important issues in this regard are (a) linkages between industrial development and changes in the micro (local) environment; (b) damage to crops and animal husbandry due to industrial pollution; and (c) impact on health and sanitation in rural communities. These issues are studied in detail with the help of primary data collected from a pollution-affected village in Andhra Pradesh.
Sunil Kumar Karn, et al (2003) published a paper on “Living Environment and Health of Urban Poor: A Study in Mumbai” in ‘Economic & Political Weekly’. This paper presents and discusses primary data from a survey of 1,070 households in four poor settlements in Mumbai comprising slum- and pavement-dwellers and squatters on the living environment and health conditions. The study attempts to examine the consequences of socio-economic and environmental factors in terms of income, literacy, sanitation and hygiene for morbidity. The needs of the urban poor and their priorities are seen to be hierarchial. They need first assurance of being allowed to stay where they are and then provision of basic amenities of toilets, water supply, sewerage and drainage.

Mridula Ramanna (2004) published an article entitled “Local Initiatives in Health Care Bombay Presidency, 1900-1920” in ‘Economic & Political Weekly’. Preventive medicine in early 20th century colonial India saw the conscious promotion of ‘sanitary consciousness’. Several voluntary organizations attempted to educate the public on western notions of sanitation and also tried to combat challenges posed by tuberculosis, infant mortality and venereal disease. This paper, through a regional focus on Bombay, looks at the hitherto unexplored role of semi-official and private bodies in health care. While their method was primarily educative and their reach limited to a few cities, the collaboration between officials, doctors and philanthropists in tackling public health challenges proved significant in the long run.

Shantayanan Devarajan and Shekhar Shah (2004) published an article entitled “Making Services Work for India’s Poor” in ‘Economic & Political Weekly’. This paper builds an analytical and practical framework for using resources more effectively by making services work for poor people. It focuses on services that have the most direct link with human development – education, health, water, sanitation and electricity – and uses examples of
service delivery from India, elsewhere in south Asia and the world to illustrate the framework.

**Gupta (2005)** writes on “Public Health in India: Dangerous Neglect” in ‘Economic & Political Weekly’. Public health services, which reduce a population’s exposure to disease through such measures as sanitation and vector control, are an essential part of a country’s development infrastructure. In India, policies have focused largely on medical services. Public health services, and even implementation of basic public health regulations, have been neglected. Various organisational issues also militate against the rational deployment of personnel and funds for disease control. There is strong capacity for dealing with outbreaks when they occur, but not to prevent them from occurring. Impressive capacity also exists for conducting intensive campaigns, but not for sustaining these gains on a continuing basis afterwards. This is illustrated by the near-eradication of malaria through highly-organized efforts in the 1950s, and its resurgence when attention shifted to other priorities such as family planning. This paper reviews the fundamental obstacles to effective disease control in India, which need to be dealt with on an urgent basis.

**Khosla, et al (2005)** in their paper “Sanitation: A Call on Resources for Promoting Urban Child Health” published in ‘Indian Pediatrics’ described that poor sanitation is known to increase the risk of morbidity and mortality from diarrhea among children. Several studies have found a high correlation between childhood morbidity and availability of sanitation services. It has been estimated that 1.7 million deaths each year, or 3.1% of all deaths are attributable to inadequate access to water, sanitation and hygiene. The urgency for sanitation in the urban environment stems from the fact that the urban poor live in crowded slums and informal settlements where sanitation facilities are particularly important for children's health and personal dignity. Demand for sanitation services has remained low, as livelihood priorities have been more pressing. There is a pressing need to get Governments and society to recognize
the appalling toll created by poor sanitary conditions in urban poor settlements. Serious efforts should be made to develop local, national and international campaigns which promote convergence among programs aimed at urban health infrastructure, community development and education; motivate people to demand and maintain better sanitation; and place sanitation to the forefront of development and political dialogue.

Sharma and Bhide (2005) published an article entitled “World Bank Funded Slum Sanitation Programme in Mumbai Participatory Approach and Lessons Learnt” in ‘Economic & Political Weekly’. Mumbai’s Slum Sanitation Programme that seeks community responsibility and its involvement in the setting up of sanitation facilities in living areas holds out important lessons for similar collaborative endeavours between the government, funding agencies, civil society organisations and the affected community. While such a broadly participatory approach ensures the accrual of benefits to the beneficiaries, it can only function effectively if methods of implementation are transparent and key members play a facilitating role.

Mehrotra (2006) writes on “Child Malnutrition and Gender Discrimination in South Asia” in ‘Economic & Political Weekly’. India, Pakistan and Bangladesh account for child malnutrition rates that are higher than in sub-Saharan Africa. This is directly related to discrimination against women in South Asia. The focus of all interventions has to be on improving the health status of women generally and as far as the infant is concerned, targeting most interventions in the first three years of life. Additionally, universal school feeding programmes will ensure that a poor family is saved the cost of at least one square meal for its children. Finally rapid action is needed so that access to safe water and sanitation is extended to the entire population.

Kavadi (2007) in his paper “Parasites Lost and Parasites Regained” Rockefeller Foundation’s Anti-Hookworm Campaign in Madras
Presidency” published in ‘Economic & Political Weekly’, stated that, in the early 1920s, the Rockefeller Foundation conducted an anti-hookworm campaign in Madras Presidency with the objective of controlling hookworm infection. However, the larger aim was to use it as an entry point for extensive sanitary measures and public health education. Two decades later infection rates remained constant while sanitation made little progress. The common people’s beliefs and attitudes were blamed for this. The reality was different. It was the RF’s diffused focus and the inconsistencies in its approach coupled with the government’s lack of commitment to the programme and public health that determined the campaign’s results.

Abraham and Kavi Kumar (2008) writes on “Multidimensional Poverty and Vulnerability” published in ‘Economic & Political Weekly’. The poverty of an entity is manifest in her deprivation not only in income but also in other dimensions such as health, nutrition and sanitation. Hence, a comprehensive measure of poverty must ideally take into account the performance of an individual across multiple dimensions. Vulnerability to poverty captures the likelihood of an entity falling into poverty, given the current status of the household. Unlike poverty, which describes the status of an entity at a point of time, vulnerability is predictive in nature. This study ranks 15 major states in terms of multidimensional poverty and vulnerability to multidimensional poverty at two time points in the 1990s. The results show that both multidimensional poverty and vulnerability provide additional insights for prescriptive policies.

hygienic sanitation practices has led to enormous benefits for the village community.

According to Mehrotra and Patnaik (2008) as stated in their article “Culture versus Coercion: Other Side of Nirmal Gram Yojana” published in ‘Economic & Political Weekly’, the sanitation programme, Nirmal Gram Yojana, with its emphasis on a top-down approach, has failed in Bastar because it is being thrust on people in an area where water is scarce and they have few resources for maintenance.

Benny George (2009) discussed on “Sanitation Programmes: A Glass Half-full” in ‘Economic & Political Weekly’. While appreciating the efforts made through the article “Culture versus Coercion: Other Side of Nirmal Gram Yojana” to bring the issue of sanitation into the public discourse, this comment offers some clarifications on the alleged shortcomings of the programmes. It also builds a strong case for focusing more attention on achieving total sanitation in our country.

Desai (2009) published on “Keeping the ‘Health’ in Health Insurance” in ‘Economic & Political Weekly’. The Rashtriya Swasthya Bima Yojna (RSBY) and National Rural Health Mission have the potential to transform the health and financial security of poor households. The experience of VimoSEWA indicates that health insurance must be firmly linked to an effective public health system. A high percentage of claims for preventable illness, unnecessary expenditure on medicines, increasing hysterectomies and inequitable claims patterns are four trends that are likely to be seen in the implementation of RSBY. To ensure that health insurance plays its intended role, appropriate investment in prevention, particularly in water and sanitation, as also, community involvement and a strengthened public sector are essential.
Malini Ranganathan, et al (2009) published on “Piped Water Supply to Greater Bangalore: Putting the Cart before the Horse?” in ‘Economic & Political Weekly’. Cities in India are moving towards commercially viable models of urban water and sanitation delivery to fill the widening gap between demand and supply. Cost recovery through upfront beneficiary contributions is increasingly becoming a key consideration in the provision of piped water and sewerage. This paper examines the Greater Bangalore Water and Sanitation Project, a project that was aims to extend piped water from the Cauvery to over two million residents in peri-urban Bangalore. The paper critically evaluates the project and makes four interlinked arguments: (1) Upfront payments from citizens have not guaranteed timely and satisfactory service. (2) The project’s financial model is disconnected from actually existing settlement and urbanisation patterns, thus delaying water delivery and undermining accountability. (3) The project’s highly centralised decision-making process has resulted in low political buy-in and public acceptance. (4) Modifications to the original financial model have been crucial in sustaining credibility and getting the project off the ground.

Pattanayak, et al (2009) conducted study entitled “Shame or Subsidy Revisited: Social Mobilization for Sanitation in Orissa, India” published in ‘Bulletin of World Health Organization’. The study was aimed to determine the effectiveness of a sanitation campaign that combines “shaming” (i.e. emotional motivators) with subsidies for poor households in rural Orissa, an Indian state with a disproportionately high share of India’s child mortality. Using a cluster-randomized design, the study selected 20 treatment and 20 control villages in the coastal district of Bhadrak, rural Orissa, for a total sample of 1050 households. The authors collected sanitation and health data before and after a community-led sanitation project, and it was used a difference-in-difference estimator to determine the extent to which the campaign influenced the number of households building and using a latrine.
The findings revealed that latrine ownership did not increase in control villages, but in treatment villages it rose from 6% to 32% in the overall sample, from 5% to 36% in households below the poverty line (eligible for a government subsidy) and from 7% to 26% in households above the poverty line (not eligible for a government subsidy). It was concluded that subsidies can overcome serious budget constraints but are not necessary to spur action, for shaming can be very effective by harnessing the power of social pressure and peer monitoring. Through a combination of shaming and subsidies, social marketing can improve sanitation worldwide.

Srila Gopal, et al (2009) published on “Study of Water Supply & Sanitation Practices in India using Geographic Information Systems: Some Design & Other Considerations in a Village Setting” in ‘Indian Journal of Medical Research’. Availability of clean water and adequate sanitation facilities are of prime importance for limiting diarrhoeal diseases. The authors examined the water and sanitation facilities of a village in southern India using geographic information system (GIS) tools. The places of residence, water storage and distribution, sewage and places where people in the village defecated were mapped and drinking water sources were tested for microbial contamination in Nelvoy village, Vellore district, Tamil Nadu. It was found that, water in the village was found to be microbiologically unfit for consumption. Analysis using direct observations supplemented by GIS maps revealed poor planning, poor engineering design and lack of policing of the water distribution system causing possible contamination of drinking water from sewage at multiple sites. It is concluded that until appropriate engineering designs for water supply and sewage disposal to suit individual village needs are made available, point-of-use water disinfection methods could serve as an interim solution.
Alok Kumar (2010) writes “Squatting with Dignity: Lessons from India” and discussed that in rural areas the top killer diseases affecting children aged below four years are caused by contaminated water and poor sanitation. The author argues that adopting safe sanitation and hygienic behaviour would lead to convenience, privacy and pride. Total Sanitation Campaign (TSC) provides reasonable economic support and materials for new toilets in the households. TSC also organizes awareness programmes for the general public with the support of non-governmental organizations (NGOs) and the media, in addition to conducting special educational programmes for bureaucrats. Panchayat raj institutions (PRIs) are the major beneficiaries of TSC programmes. In 2003, the TSC constituted the Nirmal Gram Puraskar (NGP) “clean village award” to promote PRIs’ involvement in the sanitation projects. The award is conferred on PRIs which successfully complete TSC projects within the stipulated time. The author claims that within a short span of time, the campaign has “influenced” the lives of millions in rural areas across India. However, the author also says that the success of TSC in terms of the number of panchayats which became free from open defecation was meagre.

Lavado, et al (2010) published an article “Using DEA to assess the Efficiency of Public Health Units in Providing Health Care Services” in ‘Applications in Multi-criteria Decision Making, Data Envelopment Analysis, and Finance (Applications of Management Science)’ edited by Lawrence and Kleinman. The Philippine health care system is comprised of both private and public hospitals, clinics, and health care providers, and public health units serve a huge majority of the population because of their number and accessibility to more people in terms of price and location. It is therefore important to examine the performance of these public health units and see if they could become more efficient in the delivery of health services. This study will apply data envelopment analysis (DEA) to assess the efficiency of
provinces in providing health care services in order to assist the Department of Health in identifying the performance level of each province, determining the targets for improvements in securing benefits and using resources, and identifying the peers of provinces in the delivery of health care. The data used in this study are taken from the Field Health Service Information System and Philippine Health Insurance System of the Department of the Health and the Statement of Income and Expenditure of the Department of Finance. The following programs were analyzed in this study: Maternal Health Care, Child Health Care, and Environmental Sanitation. These programs’ outcomes comprise the percentage of the prevalence of contraceptive use and fully immunized children, for maternal and child health care programs; and the percentage of people who have access to potable water and sanitary toilets, for environmental sanitation. As for inputs, expenditure efficiency is analyzed by the health unit budget per capita and technical efficiency includes the number of doctors and midwives per 100,000 population and the percentage of rural health units accredited by the Philippine Health Insurance Corporation. The DEA results for efficiency expenditure shows that only 9 out of 77 provinces are efficient in providing health programs given their budgets and the average input efficiency score is 54 percent and the average output efficiency score is 87 percent. As for the DEA results for technical efficiency, 24 out of 77 provinces are efficient in providing health care programs given the percentage number of doctors, midwives, and accredited health facilities by the Philippine Health Insurance Corporation. The average input efficiency score is 79 percent and the average output efficiency score is 80 percent. This study has shown the importance of DEA in analyzing the efficiency of delivery of public health services in provinces using expenditure, number of available health care providers, and the presence of accredited rural health units vis-à-vis environmental sanitation and maternal and child health care programs. DEA can rationalize the allocation of budgets among similar health units in order to further improve the efficiency in the delivery of health services in provinces.
Moreover, benchmarking using DEA results can improve the accountability of provincial health units in the utilization of their budgets in order to further increase the reach of province-based health programs which could lead to a marked improvement in the health of Filipinos.

Patel (2010) writes on “Dharavi: Makeover or Takeover?” in ‘Economic & Political Weekly’. Dharavi in Mumbai exemplifies what is most ugly and what is most inspiring about slum life in a city. How should it be redeveloped to remove the ugliness and yet retain its community spirit, enterprise, ambitions and hope? Current plans are focused on profit-making, by developers and government, with the welfare of the residents an incidental nuisance. This article examines the many attendant constraints in developing viable solutions. One is the promise of free pucca housing for slum-dwellers, which seems to have become a given for all slum redevelopment schemes in Mumbai. Another is the fact that Dharavi already has the highest living densities in the world, and redevelopment of the kind that is proposed will triple these densities, making living there unviable. The result could be that the present residents will sell out and flee, leaving Dharavi in the hands of high-income occupants living at more comfortable densities. An alternative would be to provide the essential infrastructure of water supply and sanitation, frame rules for redevelopment, and leave it to organisations of the residents themselves to take up reconstruction as and when they wish, in consonance with an overall plan.

Chaplin (2011) writes a book entitled “The Politics of Sanitation in India: Cities, Services and the State”. The book follows the historical method of descriptive narrative, seeking to draw out the linkages between the colonial and postcolonial state. In doing this, it takes us through more than a century of urban planning, policy and government as well as over five Indian cities: Mumbai, Kolkata, Chennai, Delhi and Ahmedabad. Chapter 1 focuses on
the period of direct colonial rule and its implications for adequate sanitation provision, tracing the development of the colonial legacy of segregated cities, marginalised local governments and failure to manage urban growth and provide sufficient housing. Chapter 2 examines priorities and allocations vis-à-vis housing and basic services in the five-year plans, the preparation of city master plans and the development of new towns. It shows the continuation of colonial approaches to urban planning and the failure of national governments to effectively manage urban growth and build water and sanitation infrastructures. Chapter 3 examines the performance of the municipal corporations of Bombay/Mumbai, Calcutta/Kolkata, Madras/Chennai and Delhi in their delivery of basic urban services, highlighting the influence of the political regime governing the city as well as the continuity of colonial legacies of under-resourced and non-autonomous local government. Chapter 4 continues the discussion by focusing on programmes to improve conditions in slums and squatter settlements in these four cities. It also looks at slum-dwellers’ experiences vis-à-vis inadequate sanitation. Chapter 5 analyses how the failure to end the practice of manual scavenging is linked to the failure to provide adequate sanitation in Indian cities. Chapter 6 considers Ahmedabad as a detailed case study. Chapter 7 examines new partnership approaches to provide sanitation to the urban poor and discusses in detail three initiatives in Ahmedabad, Mumbai and Bangalore.

Chopra, et al (2012) in their report “Greening Rural Development of India” discussed many of the social welfare and rural development schemes. Nirmal Bharat Abhiyan – formerly the Total Sanitation Campaign (TSC) - has recently expanded its scope from eradication of open defecation to comprehensive sanitation in rural areas. Ten percent of the project funds is earmarked for solid and liquid wastes management. NBA can ensure safe disposal of solid and liquid waste, and prevent untreated wastewater from re-
entering the water system. These results can substantially improve the quality of water.

**Dean Spears (2012)** published a report entitled “**Policy Lessons from Implementing India’s Total Sanitation Campaign**”. Ending widespread open defecation and pursuing feasible methods of safe excreta disposal must be top policy priorities for India. This paper draws policy lessons from the first ten years of latrine construction under India’s Total Sanitation Campaign (TSC), a flagship program of the Indian government. So far, the TSC has been able to improve average health and human capital among Indian children where it has been implemented, but sanitation coverage remains substantially incomplete. Indeed, the first ten years of the TSC will have, on average, prevented an infant death for a few thousand dollars, a comparatively very inexpensive average cost. This initial success is in part due to the Clean Village Prize or Nirmal Gram Puraskar (NGP), an incentive for village governments. Heterogeneity in the intensity and effectiveness of TSC implementation suggests that the additional benefits of extending effective TSC implementation to the many remaining Indian children would probably substantially exceed the additional costs. Therefore, as the TSC becomes the Nirmal Bharat Abhiyan, India should not miss the opportunity to invest in successful principles of total sanitation: quality data, effective monitoring, and motivational *ex post* incentives.

**Editorial (2012)** written under the title “**Sanitising Caste**” published in ‘**Economic & Political Weekly**’. Given the experience of the past, despite the TSC efforts, only 25,000 out of the more than 6,00,000 villages in India are free from open defecation. Various statistics point to an unimaginably large number of girl students missing education due to an absence of toilets in schools and people falling ill due to poor hygiene. While an increase in government funding is sorely required, why is it that sanitation has received so little attention even when, despite all the shortcomings and flaws, the
government has shown some initiatives in areas like drinking water and literacy? The crucial question actually is whether it is merely the lack of funding which is the reason for India remaining the world’s largest open lavatory? The obvious answer to both the questions is rarely ever mentioned – caste. Governments find it easy to neglect sanitation in their budgetary allocations and rare is the non-governmental organization which mentions this because sanitation in India remains the sole concern of just one caste. From private homes to schools, from hospitals to offices, and what is totally bizarre, even courts of law, in many of them there are over 10 lakh dry latrines in operation according to government data, which may well be a conservative figure. Apart from dry latrines, much of the garbage collection, road sweeping and cleaning of drains in Indian cities and villages are dependent entirely on an “efficient” functioning of the caste system. If the millions who are engaged in this work are truly free to choose their work and lifestyle, our blessed country will come to a standstill with mountains of uncollected garbage, blocked sewers and clogged toilets. Every democratic-minded person would want those trapped in demeaning caste occupations to be liberated from their shackles. The trends appear to indicate that among the castes bonded to sanitation, literacy and aspirations are growing and some of the younger people are moving out of their caste occupations. This is entirely welcome and should be encouraged. However, will throw large quantities of money on the TSC and the use of new technology be the solution to our collective refusal to address the indignity of caste and our collective culpability of forcing our fellow citizens to clean our shit with their hands? Despite all the laws and pious statements, in the cities, the removal of feces and cleaning of drains which was traditionally the occupation of one caste has been transferred to the formal sector where the entire body of government and municipal employees which does this work is drawn from the same caste whose traditional occupation has been scavenging of this kind.
Thomas Clasen, et al (2012) published on “The Effect of Improved Rural Sanitation on Diarrhoea and Helminth Infection: Design of a Cluster-randomized Trial in Orissa, India” in ‘Emerging Themes in Epidemiology’. Infectious diseases associated with poor sanitation such as diarrhoea, intestinal worms, trachoma and lymphatic filariasis continue to cause a large disease burden in low income settings and contribute substantially to child mortality and morbidity. Obtaining health impact data for rural sanitation campaigns poses a number of methodological challenges. Here the authors described the design of a village-level cluster-randomised trial in the state of Orissa, India to evaluate the impact of an ongoing rural sanitation campaign conducted under the umbrella of India’s Total Sanitation Campaign (TSC). The authors randomised 50 villages to the intervention and 50 villages to control. In the intervention villages the implementing non-governmental organisations conducted community mobilisation and latrine construction with subsidies given to poor families. Control villages receive no intervention. Outcome measures include (1) diarrhoea in children under 5 and in all ages, (2) soil-transmitted helminth infections, (3) anthropometric measures, (4) water quality, (5) number of insect vectors (flies, mosquitoes), (6) exposure to faecal pathogens in the environment. In addition authors are conducting process documentation (latrine construction and use, intervention reach), cost and cost-effectiveness analyses, spatial analyses and qualitative research on gender and water use for sanitation. Randomisation resulted in an acceptable balance between trial arms. The sample size requirements appear to be met for the main study outcomes. Delays in intervention roll-out caused logistical problems especially for the planning of health outcome follow-up surveys. Latrine coverage at the end of the construction period (55%) remained below the target of 70%, a result that may, however, be in line with many other TSC intervention areas in India. The authors discussed a number of methodological problems encountered thus far in this study that may be typical for sanitation trials. Nevertheless, it is expected that the trial procedures will allow measuring
the effectiveness of a typical rural sanitation campaign, with sufficient accuracy and validity.

Tripathi (2012) published on “Safai Karmi Scheme of Uttar Pradesh Caste Dominance Continues” in ‘Economic & Political Weekly’. The Uttar Pradesh government has a scheme to appoint rural sanitation workers. Open to all castes as government jobs are, this was intended to break the link between caste and occupation, especially in sanitation and manual scavenging works. However, a close look at the operation of this scheme in select districts of the state demonstrates the ways in which caste hierarchy and occupations overwrite the best of policies and continue the practices which these are meant to destroy.

Chambers and Medeazza (2013) published a paper on “Sanitation and Stunting in India: Under-Nutrition’s Blind Spot” in ‘Economic & Political Weekly’. The puzzle of persistent undernutrition in India is largely explained by open defecation, population density, and lack of sanitation and hygiene. The impact on nutrition of many faecally-transmitted infections, not just the diarrheas, has been a blind spot. In hygienic conditions much of the under-nutrition in India would disappear.

Chatukulam (2013) published a paper entitled “Karnataka’s Initiative in Social Audit and Transparency” in Panchayat Raj Update. The paper described the 13 services that are available under Sakal service with ease and minimum time by the Government. Further, the author evaluated the performance of different rural development schemes such as MGNREGS, NBA, etc.

Desai and Thorat (2013) published on “Beyond the Great Indian Nutrition Debate” in ‘Economic & Political Weekly’. Taking on the argument that malnutrition in India is caused by forces that respond only partially to policy interventions, this article points out that it is important to
look at the role of disease conditions – shaped by inadequate water, poor sanitation, and insufficient public health measures – in poor nutrition. Moreover, the relationship between disease and food intake is multiplicative rather than additive, and omission of disease conditions from the discourse biases any arguments made about income, caloric intake and nutrition. A holistic view shows that there is room to hope that the nutritional status of children in India will improve with the right policy emphasis.

Panda and Agarwala (2013) writes on “Public Provisioning in Water and Sanitation: Study of Urban Slums in Delhi” in ‘Economic & Political Weekly’. With the changing face of Delhi, delivery of essential services like drinking water and sanitation to the people living in slums ought to be a policy priority for the government. However, public spending in the Eleventh Plan (2007-12) for slums seems to have been unresponsive and inadequate, leading to poor utility services governance. Using budget analyses and public expenditure tracking survey methods, this article highlights important issues that impede effective water and sanitation services delivery in the context of experiences and practices captured from two resettlement colonies in Delhi.

Patil, et al (2013) writes on “A Randomized, Controlled Study of a Rural Sanitation Behavior Change Program in Madhya Pradesh, India” in their ‘Policy Research Working Paper’. Poor sanitation and open defecation are thought to be a major cause of diarrhea and intestinal parasite infections among young children. In 1999, India launched the Total Sanitation Campaign with the goal of achieving universal toilet coverage in rural India by 2012. This paper reports on a cluster-randomized, controlled trial that was conducted in 80 rural villages in Madhya Pradesh to measure the effect of the program on toilet access, sanitation behavior, and child health outcomes. The study analyzed a random sample of 3,039 households and 5,206 children under five years of age. Field staff collected baseline measures of sanitation conditions, behavior, and child health, and re-visited households 21 months later. The
analysis finds that implementation of the program activities was slower than the original timeline (only 35 percent of villages were triggered more than six months before the follow-up survey). Nevertheless, the Total Sanitation Campaign successfully increased toilet coverage by 19 percent in intervention villages compared with control villages (41 percent v. 22 percent), while reported open defecation decreased by 10 percent among adults (74 percent v. 84 percent). The intervention also led to some improvements in water quality and protozoan infection, but consistent improvements were not observed across multiple child health outcomes (diarrhea, helminth infections, child growth). However, the exposure period was likely to have been too short to result in any benefit of the sanitation interventions on child health. Given the large improvements in toilet construction documented, an additional follow-up survey with a longer period of exposure would yield valuable information on the effects of improved sanitation conditions on health outcomes.

Gothiskar (2014) published “Too Little, Too Late: Rashtriya Swasthya Bima Yojana in Maharashtra” in ‘Economic & Political Weekly’. While the union government announced its plan to extend the Rashtriya Swasthya Bima Yojana (RSBY) to the unorganised working class poor like rickshaw-pullers, ragpickers, mineworkers, sanitation workers, etc, the Government of Maharashtra has decided to scrap RSBY and replace it with the Rajiv Gandhi Jeevandayee Arogya Yojana. This article analyses the conditions of waste pickers and argues not to pit one type of healthcare against another and not to scrap schemes like the RSBY that have come anyway too late.

3.3. References:


