

STATUS OF SANITATION: A CASE STUDY OF RURAL SUNDARBAN OF WEST BENGAL

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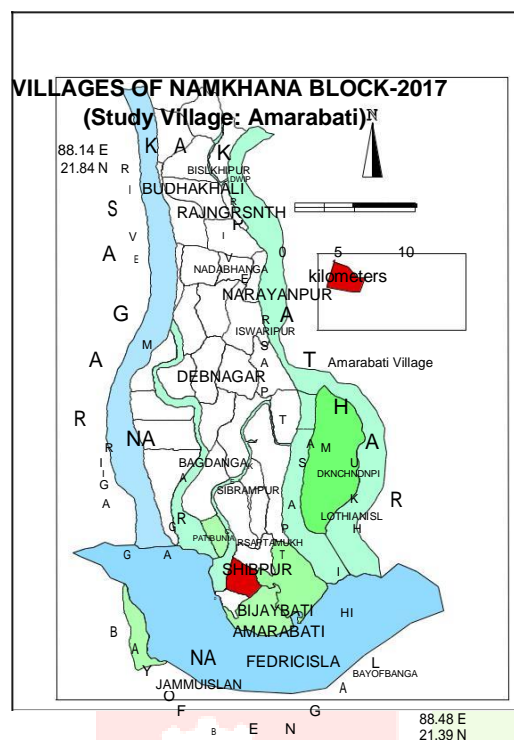
Abstract: Millennium development goals have now been replaced by Sustainable development goals. Some unfinished jobs have been prioritized again within Sustainable development goals in a more holistic way for making a better planet for future generations. It has targeted to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations by 2030. UNICEF (2018) estimated that, 1 in 7 people or 946 million people practice open defecation, 9 out of 10 people who practice open defecation live in rural areas and India has the largest number of people still defecating in the open. Now, lack of proper sanitation facility, improper disposal of human excreta, lack of personal hygiene lead to various diseases, increase in morbidity and mortality. Apart from affecting the health of the people poor sanitation creates social as well as economic poverty. Girls and women suffer the most in search of a safe and suitable place for defecation. Increasing dropout of girl student and incident of sexual harassment have become matter of shame for India. From this backdrop this paper tries to represent the status of sanitation of rural Sundarban of West Bengal. Namkhana block of South Twenty Four Parganas district in West Bengal has been selected as the study area and a part of Amarabati village of Namkhana block will represent the profile of individual household in rural Sundarban as a case study.

Key Words: Sustainable development goals, sanitation, open defecation.

1. **Introduction:** Millennium development goals have now been replaced by Sustainable development goals. Some unfinished jobs have been prioritized again within Sustainable development goals in a more holistic way for making a better planet for future generations. It has targeted to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations by 2030. To halve the proportion of people without improved sanitation, global coverage needs to grow to 75 per cent by 2015, from a starting point of 49 per cent in 1990 (WHO & UNICEF, 2004). UNICEF (2018) estimated that, 1 in 7 people or 946 million people practice open defecation, 9 out of 10 people who practice open defecation live in rural areas and India has the largest number of people still defecating in the open. According to the Census 2011 data, only 46.9 per cent of India's 24.66 crore households have a latrine facility. Jharkhand tops the list with 77 per cent of households having no toilet facilities, followed by 76.6 per cent in Odisha and 75.8 per cent in Bihar. Now, lack of proper sanitation facility, improper disposal of human excreta, lack of personal hygiene lead to various diseases, increase in morbidity and mortality. Apart from affecting the health of the people poor sanitation creates social as well as economic poverty. Girls and women suffer the most in search of a safe and suitable place for defecation. Increasing dropout of girl student and incident of sexual harassment became matter of shame for India.

2. **Study Area:** Namkhana block (extending from 88°14' E to 88 °48'E and 21° 39'N to 21° 84'N) of South Twenty Four Parganas district in West Bengal has been selected as the study area. The Amarabati Village is located in the southern portion of Namkhana block (extending from 88°16' E to 88 °17'43" E and 21° 27'29"N to 21° 28' 10"N) which has been selected to represent the profile of individual household in rural Sundarban as a case study. It is bounded by Bijaybati village in the east, Sibpur village in the north, Lakshmipur Abad in the west and Fedric Island in the south.

Fig: 1, Prepared by Authors, 20121



3. **Objective:** The main objectives are:
- To represent gram panchayat and village wise situation of sanitation of household.
 - To represent the sanitation profile of surveyed household of a part of Amarabati village.
 - To identify problems and prospects regarding sanitation.
4. **Data base and Methodology:** The primary data have been collected from door to door survey of 60 households. Data regarding infrastructure of toilet or latrine have been collected through purposive sampling at Amarabati village. Secondary data has been collected from West Bengal Census-2011 and Base Line Survey-2016 regarding total population and household at block, gram panchayat and village level, gram panchayat and village wise number of individual household without latrines. Suitable cartographic, statistical techniques and Map Info (10.0 version) have been applied for analysis and mapping.
5. **Findings:** Total sanitation campaign gives strong emphasis on Information, Education, and Communication (IEC), capacity building and hygiene education for effective behavior change with involvement of panchayati raj institutions (PRIs), community-based organizations and non-governmental organizations (NGOs), etc.(Ganesh K. S. *et al*, 2011). Nirmal Gram Puraskar has already become very famous. Several initiatives have been taken up by both central and state government to make cent percent

sanitation coverage. Still there are areas without proper sanitation and open defecation is continuing. Households have been found without sanitation within Namkhana block.

5.1 Gram panchayat wise Households without Latrines: Condition of households without latrines within the gram panchayats have been categorised into three zones (Map. 1).

i) Developed (400 to 900): Budhakhali and Haripur Gram Panchayats have lowest number (6% to 8%) of household without latrine.

ii) Moderately developed (900 to 1400): Narayanpur, Shibarampur and Fraserganj gram panchayat fall within this category. 14% to 16% of the household of these gram panchayats still do not have any latrine.

iii) Under developed (1400 -1900): Namkhana and Mausani Gram Panchayat have highest number of households without latrine. Therefore these gram panchayat represent more vulnerable situation.

5.2 Village wise Households without Latrine: Four zones (Map. 2) have been identified regarding sanitation condition of villages on the basis of household without latrine.

i) Very poor (605-805): Villages which reflected very poor condition are Amarabati, Dwariknagar and Narayanpur. More than 600 households of these three villages do not have latrine.

ii) Poor (405-605): three villages (Bagdanga, Kusumtala and Baliara) within the Mousani Island represent poor condition. About 405 -505 households of these villages have no latrine.

iii) Moderate (205-405): Ganesnagar, Namkhana, Radhanagar, Patibunia, Bijaybati, Haripur, Sibpur, Bijaybati fall within this category.

iv) Developed (05-205): Rest of the villages mostly situated in the northern and middle part of the block represent developed condition regarding sanitation of household as the proportion of household (below 205) without latrine is less here.

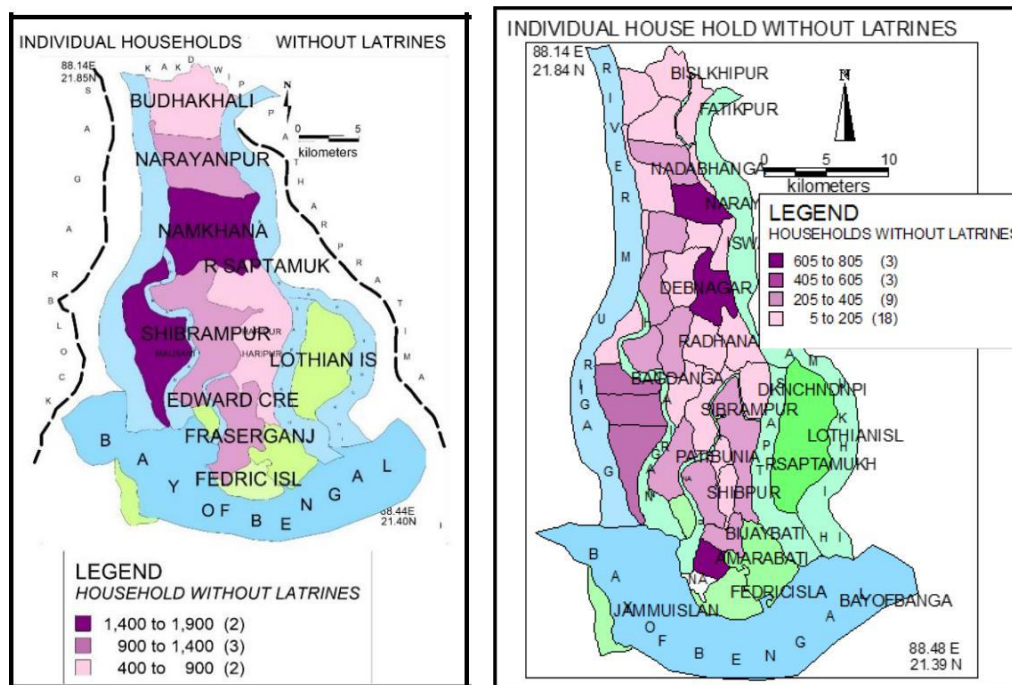
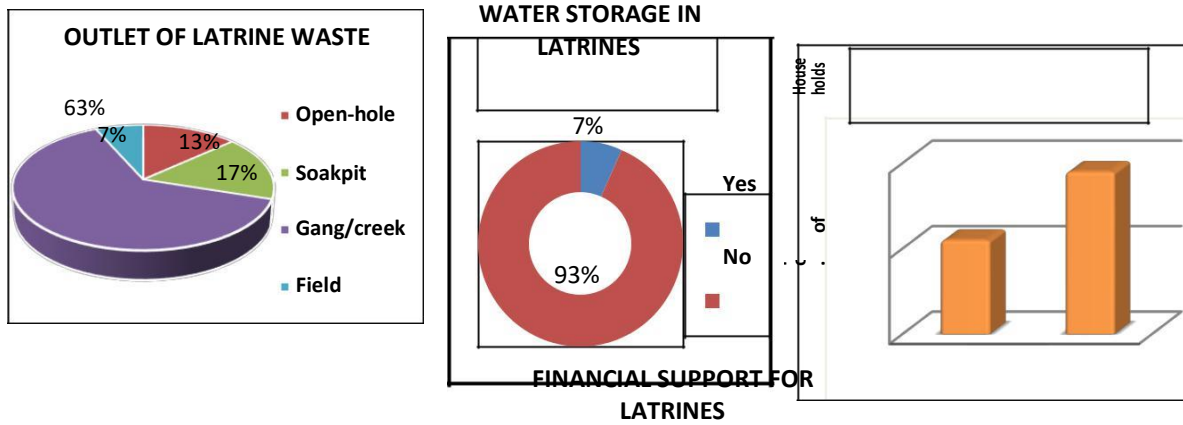


Fig 2: Gram panchayat wise household without latrine & Fig 2: Village wise household without latrine; Data source: Base Line Survey, 2016

5.3 Case study: Sixty households of a part of Amarabati village have been surveyed intensively to represent the sanitation profile of household. Only twenty percent of latrines are found within the house and rest of the houses (80%) have latrines away from home. There are three types of latrine i.e Pucca (20%), Kancha (26%) and Semi-pucca (54%) in the study area. Four types of chamber have been found like, hole or open pit (7%), Soakpit (25%), Ringpit (50%) and septic tank (18%). Sixty percent of households have pucca floor, twenty three percent of households avail the concrete slab (given by panchayat) and rest (17%) of the houses have Kancha floor within their latrine. Seventy three percent of households have built pucca wall while 27% of the households have Kancha latrine wall. Four types of Roof of latrines have been found i.e. concrete (27%), tiles and straw (17%), tin and asbestos (10%) and Plastic (20%). Still there are latrines without Roof (27%). Only seven percent of latrine have water storage facility within their latrine. Water of pond, tube well and tap is the main source of latrine water. Fifty two percents of households use soap, thirty percent of households prefer to use mud or ash and eighteen percent of households do not use anything as handwash after latrine. Seventy-five percent of households clean their latrines once per week while eighteen percent of households clean it on monthly interval. Still there are seven percent of households who do not follow any cleaning system. Sixty three percent of household drain their latrine wastes to local channel or khal, thirteen percent to open holes, 17% to soakpit and 7% into agricultural field. Sixty percent of households constructed their latrines with own fund and forty percent of households under BPL category have made it after availing the subsidy of Rs. 9000/- from the Panchayat and investing Rs. 1000/- from own fund.



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Fig 3: Outlet Of Latrine Waste; Fig 4: water storage in latrines; Fig 5: financial support for latrines; Data source: Household survey, 2016

5.4 Problems: In most of the cases women and children face problem at night. Only two gram panchayats (Budhakhali and Narayanpur) are connected with the main land of Kakdwip subdivision. Rest of the Gram panchayats are bounded by several creeks. Poor transportation facility, time bounded ferry service, high transport cost create problem towards supply of constructional material for sanitation. Open defecation is common for the children which causes diarrhea, worm and other bacterial diseases. Except Mousani Island the situation is changing at a slower rate. But concept of hygiene is still not been observed within every household. Proper flush system is completely absent within the surveyed household. The inhabitants have no idea of the usage of sufficient amount of water in the latrines. Lack of proper outlet and drainage system the presence of latrines become less effective to maintain good health. These latrines are not suitable for long term utilization as they are not habituated to use adequate water and regular cleaning. They do not use any technology for solid and liquid waste management of human excreta. Outlet of latrine through untreated waste causes pollution of waterbody, soil and air. Lack of proper infrastructural facility, poor structure of latrine, improper maintenance, cleaning all these are found to be critical for the development of sanitation profile.

Infrastructural condition of latrines of Amarabati Village (6 to 8) & Mousani Island (9 to 11) of Namkhana Block



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CONCLUSION: Lack of consciousness, low educational level, poor economic condition, geographical location, all these have been found as barriers to the way of achieving sanitation for all. Both the Central and the State government have taken up different steps but without the involvement of the local community along with the effort of individual, each and every initiatives will be unsuccessful. Spread of education, raising consciousness, providing cheap sanitation materials along with development of infrastructural facilities are the prime requirements for this study area. Extensive awareness programme is needed through drama, local festival, social function, mobile message, social media, gram panchayat meeting so that the villagers can realize the importance of safe sanitation and this will further facilitate the successful implementation of different schemes and to achieve the dream of Nirmal Gram everywhere.

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