

PROMOTION OF ECOSAN THROUGH AN INTEGRATED APPROACH

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ABSTRACT

Development partners all over the world have laid emphasis on the promotion of ecological sanitation solutions. In pursuit of this many pilot projects have been implemented and technology has been improved. Nevertheless, acceptance of this innovative technology by the general public has been hindered due to many reasons. Resistance to change from conventional practices, social and cultural barriers, lack of awareness on long term benefits and high capital cost, geographical complexities have been cited as common constraints. In addition, experience in Sri Lanka suggests that most ecosan concept promoters who piloted this new concept have adopted a top down approach.

Experience in Sri Lanka suggests that ecosan concept is an appropriate sanitation solution particularly to communities living in water logged areas and highly congested areas and where shallow ground water is used as the drinking water source. Therefore, in order to promote this environment friendly, innovative technology in a sustainable manner, it is recommended to adopt a community based, demand responsive, integrated approach in future. Considering all above factors it is observed that ecosan technology is best suited for promotion in appropriate geographical areas through community centered approach.

Key Words – Community Centered - Dry Toilet - Participatory Approach.

INTRODUCTION

Sri Lanka is an Island with a population of 20 million. Almost 78 % of the population live in rural areas. Historically, sanitation had received relatively low priority compared to drinking water supply in rural sector. Economically and socially marginalized communities in the country were the most affected due to the lack of access to sanitation facilities. Absence of basic sanitation facilities has led to the pollution of water resources and transmission of diseases, particularly among low income groups, perpetuating the cycle of poverty.

Taking in to account the above situation, the Government of Sri Lanka, during last two decades, has given high priority to the development of water and sanitation facilities as a means to improving the quality of life of people. Due to the concerted effort of the Government and NGOs, the sanitation coverage of the country in rural communities has increased from 63% in 1990 to over 76% by 2007, even though, there are substantial variations in coverage across different geographical areas and socio-cultural situations.

Country's piped sewerage coverage is less than 1 %, while the balance population is covered primarily by on- site sanitation. In case of on- site sanitation, most popular latrine technology in Sri Lanka is pour flush water sealed toilets. Under this technology, human waste is disposed to soakage pits constructed adjoining the latrine superstructure.

While much has been achieved in the field of sanitation by introducing sanitary water sealed toilets, certain limitations are observed in implementing and sustaining a successful eco-friendly sanitation program with the conventional approach. Two main constraints of the conventional approach are;

1. Limitation of water availability for water seal latrines
2. The overflow of soakage pits in water logged areas.

THE NEDD FOR NEW APPROACH/TECHNOLOGY TO PROMOTE ECOLOGICAL SANITATION

Under these circumstances, there is a need for a toilet with minimum or no use of water, and the dry toilet appears to be the answer. While the conventional sanitation intervention could resolve much of the problems leading to an improvement in the health condition of the beneficiaries, these approaches could not address environmental sanitation issues which affect the global ecological system.

The advantages of dry toilets are numerous, one of the main advantages being the non pollution of ground water resources. Given the expansion of agriculture and the wide use of chemical fertilizers there is a risk of diminishing the mineral resources used for the manufacture of chemical fertilizer which has been used for agricultural production extensively during the last three - four decades. As major crops like paddy have become highly responsive to chemical fertilizer, the diminishing supply of minerals used for manufacture of fertilizers can have serious implications for food production in the future. Therefore, planners have to make strategic interventions before we reach a food crisis situation. One of the finest interventions to arrest this trend would be to recycle the nutrients in human waste as an alternative to use of chemical fertilizer. A distinct advantage of dry toilets is that it can facilitate recycling of nutrients in human waste.

Many development partners all over the world have given emphasis to promote ecological sanitation solutions during the past decade. In this process, many pilot projects have been implemented, technology has been improved and experience has been shared. Nevertheless, acceptance of this inovative technology by the general public, as well as agencies involved in sanitation promotion has been hindered due to many reasons. Resistance to change from conventional practices, social and cultural barriers, lack of awareness on long term benefits and comparatively high capital cost, geographical complexities have been cited as common constraints to promote dry toilets and ecosan technology in general.

Almost 10 years has passed since introduction of dry toilets in Sri Lanka. Several international agencies and government institutions have been involved in promotion of this concept. As a result of these efforts, in 2007, Ministry of Health, the health regulatory authority in Sri Lanka recognised ecosan toilets as a technical option. Nevertheless, number of dry toilets constructed during this period has not exceeded 400, which is less than 0.0001 % of the country's households. Main reason for not receiving community acceptance for this technology is their preference for conventional water sealed type toilets. Their behaviour

patterns, social acceptance, and the economic factors have also contributed to the low acceptance of the dry toilet technology. Anal cleansing practices using water, and community perception on human excreta are added barriers to promote this concept. In addition, experience in Sri Lanka suggests that most ecosan concept promoters who piloted this new concept had adopted a top down approach. Therefore, it has become necessary to identify new strategies to promote dry toilet concept in the future.

Our experience suggests to us that that early introduction of an alien concept should be handled carefully and sensitively. In order to achieve any success, communities must be at the helm of the decision making process.

In this context, it is worthwhile to draw lessons from a highly successful project in Sri Lanka, namely Community Water Supply and Sanitation Project (CWSSP) which was able to market even more difficult concepts and technologies to the community. The forte of the CWSSP was its ability to change human behavior. A similar approach can be adopted for promotion of dry toilet.

COMMUNITY WATER SUPPLY AND SANITATION PROJECT

Traditionally, rural people in Sri Lanka had a highly dependent mindset because the Government provided many services of a welfare state free of charge. The Government had inherent limitations in providing basic infrastructure of water and sanitation to thousands of rural villages spread out sparsely across the country. Even where the government has provided the water supply facilities, the Operation and Maintenance (O&M) became a major challenge.

CWSSP which commenced in 1993, through its 16 years of implementation evolved an innovative approach based on participatory development methodology to address the above problem. Under this approach, communities were involved in decision making process from the inception. This approach used social mobilization with great advantage to sensitize the beneficiaries to the risk involved in consuming contaminated water, poor sanitation and also to the advantages of adopting good sanitary and hygienic practices. The mobilized community formed their own organization called Community Based Organizations (CBOs) to plan, design and implement their own water supply and sanitation program. Facilities were constructed with a major share of contribution coming from foreign donors and government, while the beneficiary communities shared of the capital cost with cash and labor have given 35% of total cost. The CBO also undertook O&M of facilities thus relieving the government of a heavy burden. This approach proved to be highly successful compared to the government owning and maintaining facilities.

Through continuous interaction with the communities, the project succeeded in injecting self confidence and creating leadership among rural people who were backward and withdrawing by nature. CBOs were able to find many innovative solutions, not only for their water supply and sanitation issues but also for their livelihood development. The project's success is even more significant when it came to creating leadership among womenfolk who traditionally enjoyed a secondary place in the society. The project succeeded in building up the skills and capacity of community who could remain at the center of village development capable of carving out their own destinies.

Salient feature of the approach is that the project imparts knowledge, skills and minimum requirement of resources to the people and they take on from that point to develop themselves and to manage their affairs. Given these successes there is no plausible reason why dry toilets cannot be popularized adopting a similar approach.

CONCLUSION/SUGGESTIONS

Experience of CWSSP suggests that when people are properly mobilized and encouraged through effective social mobilization programmes they get themselves organize to achieve a common goal. It is clear, that dry toilet promotion programs cannot succeed in isolation and that it has to be integrated with other programmes such as environmental sanitation, hygiene education and wherever possible drinking water supply in order to achieve the expected results.

Ecosan concept is an appropriate sanitation solution particular to communities living in water logged areas and highly congested areas and where shallow ground water is used for drinking purposes. This should be a target area for pilot programs, which can be used for demonstration purpose to promote the Dry Toilet concept. It is also important to involve beneficiary communities from the inception, to determine appropriate dry toilet technologies suitable to given circumstances. It will be a good strategy to promote this environment friendly, innovative technology in a sustainable manner.

Prudent monitoring and evaluation system with active community participation has to be established, and should continue after commissioning of facilities at least for one year to ensure proper usage of dry toilet constructed.

Considering all above factors it is observed that ecosan technology is best suited to be promoted in appropriate geographical areas through community centered participatory development approach.