Development of Green Culture Practices- A Socio-Educational Intervention for the Coastal Regions of Anjengo Village

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Abstract- The subcontinent's southwest corner is occupied by Kerala. 80 percent of the state's 33 million residents reside in its nine coastal districts, and the vast majority rely on the coast for their lives. Coastal erosion is a dangerous reality brought on by countless human interventions. Additionally, Kerala's coastline region faces a very major problem with environmental contamination. The coastal ecology has been shown to suffer from a lack of a good drainage system, the dumping of various types of waste, unscientific structures along the seashore, and improper waste disposal. The current study aims to to lessen environmental pollution in the coastal region by encouraging proper green cultural practises among the local population. The study seeks to popularise the created intervention in the select coastal villege, Anjengo at Trivandrum district.

Key Words-Green Culture Practices, Environmental Contamination, Socio-Educational Intervention

1. INTRODUCTION

Kerala, India's southernmost state, is fortunate to have a sizable amount of seashore. In terms of Kerala's coastal region, industrial activities like development and sloppy waste management practises cause environmental impact by causing coastal erosion and other associated problems. A key problem that has to be addressed is the rural population's lack of information about efficient trash management. As a result, the researcher realised that a community-based intervention module containing a number of tactics for fostering green culture practises inside the coastal community was necessary. Additionally, the study aims to spread awareness of the established module on green culture practises in the coastal regions of the remaining districts in the state as a future venture.

The issues with the global ocean are periodically evaluated by the joint group of experts on scientific aspects of marine pollution (GESAMP) and advisory group to the United Nations. According to GESAMP 1991, nutrient pollution, microbial contamination of seafood, waste disposal (particularly plastic), and oil marine systems are the main issues facing the world's oceans. According to Goldberg (1994), coastal ecosystems are harmed by the growing amount of plastic on the ocean floor. Masria, Negm, Iskander, and Saavedra (2015) discovered that although many initiatives were adopted before to apply the integrated coastal zone management in Egypt, these trials' outcomes were unsatisfactory due to using a top-down approach, a lack of capacity, a lack of stakeholder involvement, a lack of integration, and a lack of institutional arrangements for coastal zone management. Indonesia. According to Evans, Dawson, Day, Frid, and Gay (1995), there was considerable beach litter pollution and inshore water contamination.

The National Oceanic and Atmospheric Administration (NOAA) estimates that 80% of the pollution that impacts the marine environment originates from land. The primary land-based sources of ocean pollution, according to studies on coastal pollution by Vikas and Dwarakish (2015), include oil, dirt, septic tanks, farms, ranches, and automobiles. In 2012, Robin R. S. et al. looked at the bacterial population in the coastal waters of southern Kerala. The transect along the Cochin River and Neendakara exhibited the greatest concentrations of enteric bacteria, respectively. This was brought on by the indiscriminate dumping of enteric microbe-enriched urban sewage, industrial effluents, and labour.

Due to Kerala's coastline serving as a landfill for untreated sewage waste and industrial effluence, the

microbial population, particularly near seashore water, is enhanced. A research on marine pollution by Thanal, an environmental organisation located in Kerala, revealed that a significant amount of rubbish was made up of single-use plastic bags and carry bags, plastic cutlery, and tobacco products. According to the National Centre for Sustainable Coastal Management (NCSCM), a well-established grama based decentralised planning administration structure and the high literacy rate offer opportunities for successful grass-roots initiatives to address a variety of concerns.

2. SIGNIFICANCE OF THE STUDY

The goal of the current study is to create and disseminate a thorough community intervention module on Green culture practises in the select coastal villege, Anjengo at Trivandrum district. Studies on the issues and causes of coastal pollution have been conducted all around the world. However, it was discovered that there were few research on corrective actions and their efficacy. Many study results have, however, highlighted the necessity of decentralised, community-level interventions for rural areas. The state governments of India created a variety of policies as part of the Swatch Bharath Mission to further the objective. Results of the mission were effective among both urban and rural populations. Hence the investigator decided to fill the gap in the research context in terms of a Socio-Educational Intervention on green culture practises.

3.OBJECTIVES OF THE STUDY

1. To find out the extend of environmental contamination at Anjengo coastal region in Trivandrum district.
2. To develop Socio-Educational Intervention on coastal area green culture practises suitable to Angengo region n Trivandrum district.
3. To find out the effectiveness of module on coastal area green culture practises

4.METHOD

The study comprised four phases and used experimental and survey methods.

Phase 1: Initial investigation of Anjengo coastal region's environmental contamination.

Phase 2: Development of a Socio-Educational Interventionon coastal area green culture practises.

Phase 3: Putting Socio-Educational Intervention green culture practises into practice and testing them out in a specific coastal location.

Tools Used to collect data

- Interview schedule for people (Phase 1)
- Survey schedule (Phase 1)
- Module on green culture practices (Phase 2)

Techniques used

- Interview
- Observation

Population

Adult members of the commuity between the age age group 25 and 65

Sample

356 Adult members of the 2nd and 6 th wards of Anjengo Village between the age group 25 and 65

Measures adopted for analysis

Both quantitative and qualitative techniques were adopted for analysis.

5.ANALYSIS AND DISCUSSION

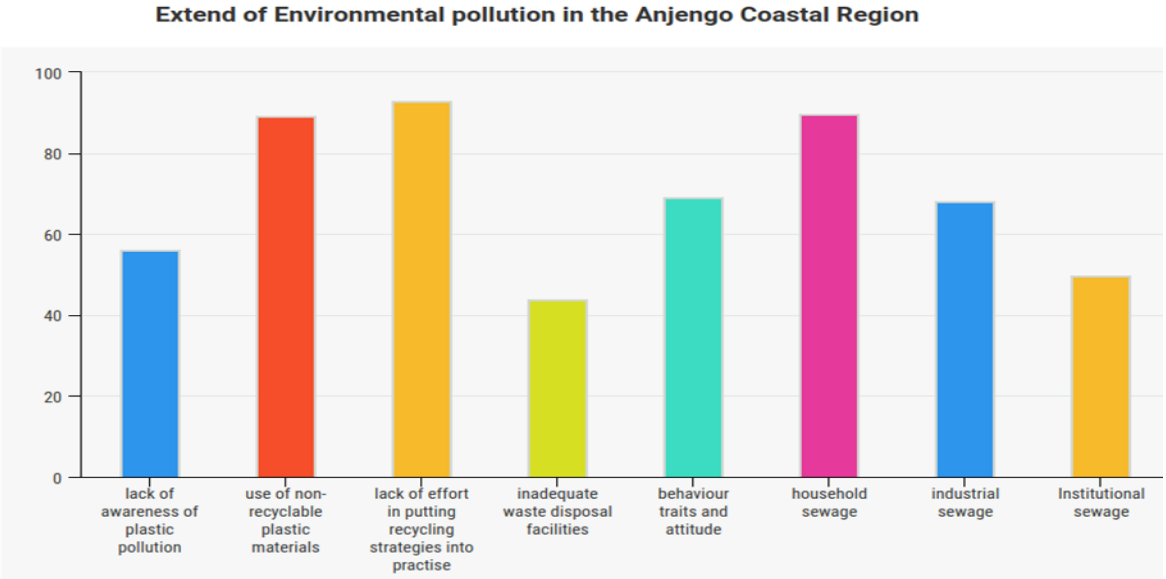
1. Environmental pollution in the Anjengo Coastal Region:

The study's findings show that 89.73% of locals throw plastic debris into the water. The content analysis of the interview schedule reveals that the reasons for discarding plastic debris into the ocean are lack of awareness of plastic pollution (56.02%), use of non-recyclable plastic materials (89.30%), lack of effort in putting recycling strategies into practise (93%), inadequate waste disposal facilities (43.98%) and behaviour traits and attitude (69.21%).

Another contributor to environmental pollution is seawage (91.56%) released from the coastal region. 89.68% of respondents said they were immediately disposing of household sewage from their kitchens, bathrooms, toilets, and laundry into the ocean. The results and the observational analysis (92.36%) are consistent. Additionally, industrial sewage from ice plants is shown by the analysis (68.20%). Institutional

sewage disposal rates are somewhat average (49.84%).

The examination of the data makes it abundantly evident that in order to reduce the most amount of coastal pollution, the local population must get the necessary behavioural interventions. In this respect, it was determined that the application of green environmental policy was necessary, and intervention plans were created in accordance with this.



2. Development of a Socio-Educational Interventionon coastal area green culture practises.

The two main factors served as the foundation for the development of the intervention techniques. Awareness Sessions and Practical engagements. The resource presentations were given by the aspiring teachers through community extension programmes during the awareness events. The primary areas of concentration included vegetable gardening, hygiene and cleanliness practises, reuse and recycling awareness, and plastic waste management. The villagers received instruction in the manufacturing of sustainable materials and Swadeshi goods during the practical session. The intervention strategies were constantly used for six months while progress in behavioural change and environmental modifications were tracked.

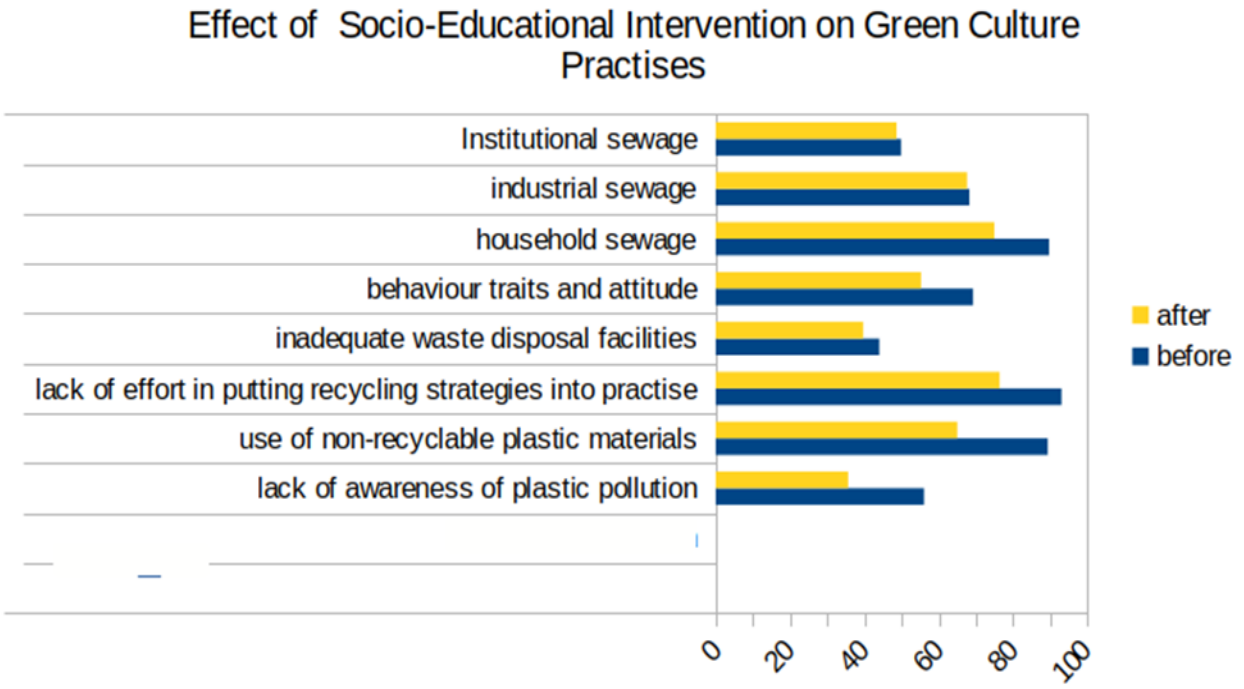
3. Effect of Socio-Educational Intervention on Green Culture Practises

The current intervention utilized a one-group, quasi-experimental design. A mixed method design was implemented and the Embedded Design Model (Creswell, 2012) was chosen for carrying out the intervention programme since the study requires both quantitative and qualitative data to respond to the two types of research questions during the experimental phase. The researcher believed that if the study avoided the qualitative description of the intervention programme, the quantitative outcome assessed from the intervention would not make much sense or have the least significance.

Table showing the scores obtained before and after Intervention

Criteria	Before Intervention	After Intervention
lack of awareness of plastic pollution	56.02	35.62
use of non-recyclable plastic materials	89.3	64.98
lack of effort in putting recycling strategies into practise	93	76.36
inadequate waste disposal facilities	43.98	39.65
behaviour traits and attitude	69.21	55.21

household sewage	89.68	74.95
industrial sewage	68.2	67.6
Institutional sewage	49.84	48.62



Graphical Representation of Effect of Intervention

The study's findings support the following conclusions.

1.Intervention tactics improved green culture practices, particularly with regard to the use of reusable plastic products, putting strategies for recycling into action, and reducing the discharge of sewage from homes into the ocean.

2.The initiative caused the locals' awareness of plastic pollution to rise.

3. The intervention tactics were successful in causing changes in the community's residents' emotional domain. For the next generation, the positive behavioral shifts in attitudes toward environmental conservation are encouraging.

The investigator believes that the replies of the samples on the discharge of institutional sewage and industrial sewage into the ocean are ambiguous based on the c ysis of the data. Even after the deployment of intervention techniques, however, the observational study of the data from companies like ice factories clearly demonstrates that there have been little incremental gains in terms of coastal pollution. The investigator also believed that the community's educational and sociocultural milieu had a substantial impact on the environmental problem there. Therefore, to improve the quality of life in the community, adequate encouragement of the educational opportunities of the next generation must go hand in hand with the long-term and ongoing execution of the Intervention programme. Additionally, it is fully expected that the ongoing execution of a comprehensive intervention plan in the state's coastal districts would have a significant influence on the environmental protection efforts under the current circumstances.

6.IMPLICATIONS OF THE STUDY

- A consistent and thorough intervention effort aimed at reducing environmental pollution in the country's rural areas can greatly reduce environmental contamination.
- The responsible stakeholders may employ a long-term execution of the initiatives for the benefit of the coastal community.

- The quality of the interventions would be improved by including future nation builders like teachers, aspiring teachers, student volunteers, and other stakeholders.

7. CONCLUSION

The creation of a socio-educational intervention based on green cultural practices is the focus of the current study, which is an urgently required area of research. It supports the social duty of research with a focus on the community's socially and educationally underprivileged segments as an exploratory experimental activity. Being one-third of the earth's surface, the oceans require immediate care since they are the source of millions of species throughout their life cycles. The intervention's outcome validates its earlier efforts in this aspect as well.

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