
Haritha Karma Sena Project in Kerala: Status, Responsibilities and Performance

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Abstract: *The extent of disposability depends on the nature, content, and the extent of solid waste. All local conditions are conducive for the garbage management. The availability of high-tech machineries and skilled labour is mandatory for final processing of solid wastes. Haritha Karma Sena is a system formed to solve the acute waste problem of the state in a decentralized manner. It is working with the objective of ensuring employment and income through the collection and treatment of waste materials, thereby finding a solution to the waste problem faced by Kerala. The project also plays a huge role in achieving cleanliness in the state as part of 'Malinyamuktham Navakeralam'. This paper studied the status, responsibilities and performance of Haritha Karma Sena project in Kerala.*

Key Words: *Haritha Karma Sena; waste management; performance; Kerala.*

1. Introduction:

Waste Management has become an essential service provided by Government for the wellness of public. Due to rapid growth of economies and rising living standards, increase in the quantity and complexity of waste generated. In now a days it has become a serious issue in many states including Kerala, creating lot of ecological issues. Haritha Karma sena is a professional team consisting of Green Technicians and Green Supervisors mainly Kudumbashree Women who will be assigned with the responsibility of collection, transportation, processing, recycling, disposal, and management of waste materials in association with respective Local Self Governments and Suchithwa Mission (Government of Kerala, 2023). Green Technicians are trained man power recruited to provide technical services and solutions on waste management projects. One Green Technician has to visit 250 households in

a ward. In one Ward two Green Technicians will be positioned and one supervisor for managing 15 Wards. So for a Panchayat having 15 Wards, the total man power is 31 (Government of Kerala, 2024). The Green Supervisor must be a graduate able to operate computers and give reports. The collection of user fee will be the responsibility of Green Supervisor. Haritha Sahaya Sthapanams, the accredited agencies of Haritha Kerala Mission which will provide technical assistance to the Haritha Karma Sena (Government of Kerala, 2023). Zirm and Mayer (1990) studied the management of hazardous substances in the environment and Barrow CJ (2020) examined the environmental management principles and practices. Nath KJ (1993) and Chhatwal GR (1997) analyzed the solid waste management in India. Smithson, Myths (1992) and Rajeev SR (2023) also examined the end to end process of solid waste management.

1.1. Objectives: The overall objective is to examine the present status, responsibilities and performance of Haritha Karma Sena project in Kerala. More specifically the specific objectives are:

- (i) to study the responsibilities of Haritha Karma Sena project in Kerala, and
- (ii) to analyse the present status and performance of Haritha Karma Sena project in Kerala.

2, Materials and Methods: The study is solely relied on secondary data; collected from the publications of Govt. of Kerala and India.

3. Results and Discussion: The earth's atmosphere is being changed at an unprecedented rate by pollutants resulting from innumerable human and economic activities. Uncontrolled consumption laid heavy weight on industrial processes. Most of the solid wastes generated from derived demand. The scrupulous use of these materials increases the quantum of solid waste on the earth. Climate change, ozone layer depletion, effects on vegetation and soil, water and other environmental issues are the result of long-range transport of pollutants including acidifying substance; threaten our future world. Management of waste from economic and authoritarian perception has a democratic approach (Government of Kerala, 2023). Management of non-degradable or degradable solid waste is a project, discipline, or carrier. A developable and democratic model is seen in Kerala regarding sold waste management and disposal. A mass and collective movement of women

(Kudumbasree) is functioning in a disciplined way in the state. Haritha Karma Sena, a Kudumbasree initiative in Solid Waste Management, work together with Haritha Keralam Mission, Suchitwa Mission and Clean Kerala Company for a garbage-free state (Government of Kerala, 2024).

The power of Haritha Karma Sena is entrusted with the local bodies. The Haritha Karma Sena collects non-biodegradable waste, especially plastic, not on free of cost but a nominal collection charge levied from houses and institutions and to send into grating units for recycling. The waste is segregated into different sections based on its features; H.M White, P.P, H.M, LD Print, Bajar, Ganny, Bulb, PVC, steel, tubes, bottle, E- waste, LD (Glucose), Bottle caps and Spray bottle (Government of India, 2023). Initially, 22119 Kudumbashree workers are deployed as Green Task Force (Haritha Karma Sena) members in 689 local bodies across the state. They are part of 638 Green Task Force Groups in gram panchayats and 81 urban local bodies. As per the data the Haritha Karma Sena collected 7883942 tons of plastic from houses and 765290 tons of plastics from shops and institutions (Government of Kerala, 2024). The plastics collected from houses are stored in Material Collection Facility centers and charged a minimum user fee. It is used for the payment of salary to the workforce.

From the sorted waste, usable materials are reached to the Swap Shops. It encourages the reuse of waste. In this way waste is converted into wealth. Income generation is possible in multiple ways; user fee, selling of reusable materials through Swap Shops and selling of the sorted non-reusable materials. Haritha Karma Sena have link with, their parental concern, Kudumbasree, the technical service provider of Clean Kerala Company, the labour force provider, Employment Guarantee Mission (MGNREGA) and their guide, Pollution Control Board. In 2022-23 the Haritha Karma Sena handed over more than three crore tones of materials to Clean Kerala Company and earned more than five crore rupees (table 1).

Table 1: District wise status and responsibilities of Haritha Karma Sena Project in Kerala

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Districts	No: of LSGs	No: of LSGs kept fund for HKS	No: of Haritha Karma Sena Identified	No: of LSGs completed training of HKS	No: of Haritha Karma Sena Trained	No: of Haritha Karma Sena units started Operation	No: of HKS consortium formed
Thiruvananthapuram	78	73	1706	71	1970	34	27
Kollam	73	73	2477	72	2634	18	4
Pathanamthitta	58	47	1528	54	1274	38	41
Alappuzha	78	71	3460	72	2290	20	8
Kottayam	77	44	2187	77	2031	33	26
Idukki	54	36	1736	48	1446	18	45
Ernakulam	96	47	2251	34	1469	16	12
Thrissur	94	20	2200	61	2646	20	11
Palakkad	95	72	2862	95	2862	35	9
Malappuram	106	96	2925	86	2876	25	61
Kozhikode	78	48	3004	79	1978	67	27
Wayanad	26	26	491	25	998	7	26
Kannur	81	81	1500	81	1837	59	19
Kasaragod	41	33	1193	33	1206	20	8
Total	1035	767	29520	888	27517	410	324

Source: <https://www.kudumbashree.org/monitor-progress/257/611>

3.1. Transforming towards a Cleaner and Healthier State: Activities related to Haritha Karma Sena are carried out under the joint guidance and cooperation of various development missions, local self-government bodies, and various government private agencies in the state. It was founded on the idea of turning waste into income, are working for a Garbage-Free Kerala in collaboration with Local Self-Governments, Suchitwa Mission, the Health Department, and Clean Kerala Company. This group collected 11000 metric tonnes of sorted plastic and 51000 metric tonnes of other non-organic waste in the last financial year.

3.2. Responsibilities:

3.2.1. Responsibilities of the State Mission:

- | To supervise the activities of the Mission and also to issue guidelines and advice for the smooth functioning of the Mission.
- | To ensure effective coordination between the various departments, agencies and the officials.
- | To examine the Mission document prepared by the State level Karmasena and to issue approval.
- | To examine the scope and possibilities for augmenting resources including CSR fund.
- | To ensure the supervisory- monitoring system function effectively.
- | To issue guidelines to the executing agencies for implementing the approved projects.
- | To ensure proper assistance for the Planning and execution of the activities of the Mission.
- | To ensure effective interventions in the Executive levels and in the association levels, so as to obtain approvals for their implementation.

3.2.2. Responsibilities of the State Level Karmasena:

General responsibilities:

- | Issuing suggestions and recommendations for achieving the goals and objectives of the Mission.
- | Preparation of Mission documents.
- | Presiding over the day to day activities under the supervision of the State Mission.
- | Closely monitoring the activities of the Mission at different levels continually and initiate action for its smooth functioning.
- | Identifying Technical experts, Consultants, Resource persons and submitting recommendations for their engagement to the Empowered Committee.
- | Ensuring the effective involvement and performance of Resource persons and District level Karma Senas.
- | Ensuring if State Mission meetings are convened periodically.

- | Preparation of proposals on the matters which require the approval of bodies like State Mission, Empowered Committee and Government.
- | To ensure if performance of the Mission is documented in a proper manner.
- | Taking necessary action to extend Technical Support and Research and Development from the professional institutions to be made available to the LSG bodies.
- | Identifying a team of technical experts in the State and District level and enable the teams to impart technical knowledge to the Mission.
- | To over of activities of the Local Self-Governing entities and the Mission is the coordinated in a well-synchronized manner.
- | To check of the periodical progress of the activities of the Mission and the status of the execution of the projects are sent to the State Mission, Empowered Committee and the Mission Monitoring team at regular intervals.

Special responsibilities:

- | To initiate actions to achieve the objectives of Haritha Keralam Mission.
- | To provide financial assistance and high-level technical support extended.
- | Involvement in settling technical disputes if any in the execution of projects undertaken by the Local Self-Governing bodies.
- | Providing special technical support if any required.
- | Application of modern technologies and innovations in the LSG entities appropriately.
- | To supervision if the scope of coordination of the three Karma Senas of the Sub Missions shall be examined and implemented.

3.2.3. Responsibilities of the district mission:

- | To supervise the activities of the Mission and also to issue guidelines and advice for the smooth functioning of the Mission.
 - | To coordinate shall be made in such a way that the activities of the agencies and officials shall be centralized at the Local Self-Governing bodies.
 - | To affirm that the local self-government entities and the agencies are taking up the projects as envisaged in the District Mission document.
 - | To identify the educational institutions and hospitals which require upgradation and modernization on the basis of approved criteria.
 - | To ensure resource augmentation through CSR funds.
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3.2.4. Responsibilities of district level Karma Senas:

General Responsibilities

- | Presiding over the day to day activities under the supervision of the District Mission.
- | Compiling the various projects of the Local Self Govt bodies and prepare District Mission document.
- | To see if project implementation in the district level is reviewed properly and initiate steps for the successful completion of the projects.
- | Identification of a team of district-level technical experts and enabling them to transfer technical knowledge.
- | Enabling the services of the technical experts or the services of the Research and Development.
- | To take necessary action whenever the intervention of the District Collector or the State Planning Committee of the Mission is felt essential, necessary action shall be taken.
- | Appropriate proposals shall be prepared and submitted for approval on matters which require State level decisions.
- | The performance of the Mission shall be maintained and documented. Also, assure that the activities of the Local self-government bodies.
- | Affirm that effective actions are undertaken by the working groups and Resource persons in the Local Self-Government bodies.
- | To observe if the periodical progress of the activities of the Mission and the status of the execution of the projects are be sent to the District Mission, District Planning Committee, State level Karma Sena and to Mission monitoring team at regular intervals.

Specific Responsibilities:

- | Recommendations for constituting Sub Committees for Agriculture, Water Conservation, Hygienic Waste Management of the State level Karma Sena.
- | The State level Karma Sena if finds it necessary to have assistance for planning and project formulation, in the spectrum of Agriculture, Water Conservation, Hygienic Waste Management, such recommendations shall be given.

3.2.5. Responsibilities of Block Level Mission:

- | To issue guidelines to the Resource team to ensure the possibilities of coordination at the Block level.
- | To give leadership in the preparation of State level projects for the Health institutions under the control of Block Panchayat.
- | To provide guidelines for the State level projects which have to be coordinated with Grama Panchayats, centrally sponsored schemes and appropriate, conditions for execution shall be prepared.

3.2.6. Village/Municipality/Cooperation:

- | Take the lead role for the preparation of projects for the Grama Panchayat/Municipal area.
- | Initiatives to coordinate the activities of various Government departments, agencies, volunteer organizations with the Local Self-Government entities.
- | Participation of people from all walks of life shall be ensured.
- | Resource augmentation through CSR fund.

Responsibilities of Karma Senas, Village, Block, District Panchayats and Municipalities:

- | Providing technical support for the collection of data and information.
- | To fix the short-term and long-term targets of these Missions distinctly.
- | Projects for Grama panchayat areas and Municipal areas shall be prepared distinctly.
- | Institutional projects for the educational institutions and hospitals under the jurisdiction of the Local Self-Government bodies shall be prepared and codified with the Local Self-Government bodies.
- | Technical assistance shall be made extended to the Local bodies through District level Karma Sena as and when required.
- | Whenever intervention of Mission/Local bodies is seen needed, suggestions and solutions shall be proposed before the respective committees.
- | Decisions and approvals if any required from District or State levels such proposals shall be submitted through Local bodies.

- | The activities of the Mission shall be documented.
- | The performance appraisal of the Mission shall be reported to the Governing bodies on time.
- | Review reports, reports on the progress of the execution of the projects and evaluation reports on the performance of the Mission shall be submitted to the District level KarmaSena and District Planning Committee periodically.

Responsibilities of the Coordinators of the State Mission / Sub Mission:

- | To initiate a lead role in getting the Karma Sena performing their duties and responsibilities in an effective and time bound manner.
- | The duties and responsibilities shall be distributed to the members of the Karma Sena and their activities shall be coordinated and monitored.
- | Detailed proposals on the matter which require the approvals and decision of the Mission Group and Empowered Committee shall be prepared
- | Create an excellent rapport with the Karma Senas.
- | Constantly in touch with the District level Karma Sena and make effective interventions for the smooth functioning of these entities.

3.3. Sustainable Sanitation through Scientific Waste Management Systems: Kerala began collecting user charges from its rural communities in 2020. 7912842 households and 765833 institutions benefit from door-to-door collection of non-biodegradable and dry waste. A total of Rs. 255041184 has been collected as user fees. Haritha Sahaya Sthapanams is the accredited agency of Haritha Kerala Mission, which provides technical assistance to the Haritha Karma Sena. There are 51 Haritha Sahaya Sthapanams empanelled by Suchitwa Mission for providing assistance to LSGIs in waste management of which the Socio-Economic Unit Foundation (SEUF) is one. The total quantity of waste generated in Kerala every year is about 25 lakh tones; 69% is organic and 31% is inorganic waste. About 70% of organic waste contains moisture. Combustibility of inorganic waste is 79.2%.

Garbage Free Kerala through Harithakarma Sena: Haritha Karma sena is a professional team consisting of Kudumbashree women who will be assigned with the responsibility of collection, transportation, processing,

recycling, disposal, and management of waste materials in association with respective LSGs and Suchithwa Mission. The activities aimed at sustainable waste management.

Digital waste management: Harithamithram App has been launched by Haritha Kerala Mission and Suchithwa Mission to ensure accurate monitoring of services including doorstep collection. The entire process of solid waste management is coordinated through this application.

Navakeralam Action Plan: The action plan focuses on environmental restoration in all possible ways by solving environmental problems that can cause climate change, spread of epidemics and health problems.

Litter Free Kerala Campaign: Activities have also been expanded in the areas of domestic and biomedical, sanitary waste management, poultry slaughter waste management, construction and demolition waste management, disposal of traditional landfills and solid waste collection in water bodies. Creative activities have also been initiated in the tourism sector.

Kerala Solid Waste Management Project: The total urban solid waste generation in Kerala is 3.7 million tonnes per annum. The Project is implemented in 93 municipalities of the state at a cost of Rs 2400 crore. The development objective of this project is to strengthen the institutional and service delivery systems for solid waste management. The project comprises of three components; institutional development, capacity building, and project management.

4. Conclusion: Haritha Karma Sena is a part of Kudumbashree mission collects non-biodegradable waste from houses and establishments to shredding units for recycling. The waste is segregated into different sections based on its features. The shredded plastic is being given to the local bodies for road tarring by Clean Kerala Company. Each Kudumbashree worker visits minimum 250 houses to collect non-biodegradable waste. The collection is based on user fee. The manufacture of environment-friendly materials, maintenance of waste disposal mechanism, organic farming, and environment-friendly equipment on rent and compost making and associated works are taken up by members.

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