

Exploratory Study To Understand The Factors Involved In Selection of Environmental Monitoring Service Provider

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Abstract: In the 21st century, fate of environment has become a critical issue in both developed and developing countries throughout the world. We know that increased societal activities and demands are changing soil, water, air, climate, and resources in unexpected ways. For successful implementation of environmental protection programme, it is essential to identify and quantify the pollution sources, pollutants, conduct baseline survey, lay down standards and build-up monitoring systems. To meet out these requirements, a competent laboratory is required with all necessary instruments, equipment, expertise, capabilities etc. Based on the guidelines and consultation of the MOEF (Ministry of Environment and Forest), the procedure for recognition of environmental laboratories which have been prepared by the CPCB (Central Pollution Control Board). The current study of 20 organizations from chemical, engineering, agrochemical & textile industries for an exploratory study to understand the factors they consider at the time of selection of any environmental monitoring service provider. Factors such as NABL (National Accreditation board for Testing and Calibration Laboratories) accreditation, MOEF Approved laboratories, frequency of monitoring, expected services by service provider in relation of testing time, report generation time, responsiveness of service provider. Such factors have been analyzed by designing and collecting response through a structured questionnaire from the above mentioned industries. The outcome would certainly enable better understanding of its prospective customers to the environmental monitoring service providers and will help them to create a potential competitive advantage.

Keywords: Environmental monitoring, MOEF approved, NABL accreditation, environmental monitoring service provider

Introduction

Scientific and technological progress have accelerated the pace of economic growth with significant

increase in the production of food grains, development of infrastructure, agricultural crops and communication facilities, transport system but irregular, unplanned and haphazard industrial development has drastically degraded environment. It can risk human life and the very existence of mankind on this planet earth. It has degraded the environment and ecology, not only in developed and the rich countries, but also in the developing and poor countries.

Environmental Monitoring: Environmental monitoring can be defined as the systematic sampling of air, soil, water and biota in order to study and observe the environment, as well as to get knowledge from this process. (Laboratory analytical techniques series lats/9/2008-2009)

Objective Of Monitoring: Monitoring is carried out to evaluate pollution effects on man and his environment in order to identify possible causes and effect relationship between pollutant concentration, climatic changes and the health effects etc. Monitoring of the environment is considered for a number of reasons. In general, monitoring is done in order to gain information about the present levels of harmful or potentially harmful pollutants in the industrial discharges to the environment, within the environment itself that may be affected by these pollutants (Laboratory analytical techniques series lats/9/2008-2009).

Environmental Laboratory: The environmental laboratory plays a key role in assessing the status of environment comprising both biotic (flora, fauna and human being) and abiotic (soil, water and air) components. An environmental laboratory is a laboratory processing samples taken from the environmental media (air, water, soil, and biota) both from the environment as well as from sources disposing into the environment (industries, domestic and agriculture sources, automobiles etc.). The laboratories are the essential corner stones of any effective pollution control programme. The analytical laboratories provide quantitative data as well as qualitative data for better decision making purpose. For creating this valuable data with a desired accuracy and to quantify concentration of the constituents present in the samples, the laboratory should have the desired facilities and capabilities to achieve the above goal (Guidelines for recognition of environmental laboratories under the environment (protection) act, 1986 central).

Legal Provisions of Recognition of Environmental Laboratories: The need for laboratories in implementation of the various pollution control acts laid down for the protection of the environment is essential under the following sections of various acts i.e. The Water (Prevention and Control of Pollution) Act-1974, The Air (Prevention and Control of Pollution) Act-1981

The Environment (Protection) Act-1986.

Methods

Population and Sample

Research method- Exploratory study

Universe – Research is carried out by selecting 4 different industries whose manufacturing unit or registered offices are located in Thane and Raigad district.

Survey instrument - Questionnaire

Sampling unit - Company as whole.

Sampling size (n) - Sample size of 20 companies is considered for research.

Sampling design/ method - non probabilistic convenience sampling, Quota sampling, considering objective of research sample shall select from different industries with same sample size.

Sampling Area - Taloja ,Dombivali, Patalganga, Palghar and Lote. Data Collection Source

Primary data is collected through a structured questionnaire prepared in consultation with project guide, industrial guide and experts in this field. Data in the form of responses to the questionnaire is collected from the responsible person of the company. Respondent could be Director, Safety manager, General Manager, C.E.O, Operational manager, senior manager etc. of the company. Secondary Data existing in the form of the client list of the companies with details carried by the Mumbai Waste Management Limited was considered for study. Additional data collected from reference literature, books, journals, and e-resources.

Data Analysis And Findings

Type of environmental monitoring company does –

With reference to Fig.1, majority of companies are carrying out water, air, noise and soil monitoring, as required by the type of industry.

Frequency of conducting Environmental monitoring

– With reference to Fig.2, in various industries, there is different frequency of doing different types of monitoring. It is observed that majority of companies doing monitoring on monthly and quarterly basis, which is as per CPCB (Central Pollution Control Board) consent copy.

Criteria for selection of environment monitoring service provider – With reference to Fig.3, an open ended question asked here to collect the responses. Findings shows that companies for different industries are focus on list of the same parameter while selecting service provider. Among the parameters listed from the research, NABL accredited and MOEF approved laboratory is the most concerning factor among all parameters as the criteria for selection of the environment monitoring service provider. It is observed that customers are giving preference to NABL accredited and MOEF approved laboratories. Because they

wanted to follow the CPCB guidelines and also companies are aware of fact that certified lab are good in technology, equipment, skillset and services. Which cover many factors that are important while selecting environmental monitoring service provider. It was also observed that customers are not much concerned for ISO certification of laboratory.

Duration of Sending quotation in response to the inquiry: With reference of Fig.4, existing service providers of the companies send quotation in response to their enquiry within a week or on the next day. Finding says that very few service provider responses after more than week. In general, response time is within a week.

On the same day of inquiry=4, On next day =7, Within a week = 8, More than a week = 1

Expected duration of revert for quotation to the enquiry – With reference to Fig.5, it is observed that as per expectation of majority of the companies, service provider should revert to their enquiry within a week or on the next day.

On the same day of inquiry=5, on next day=4, within a week=10, more than a week=1

Arrival time of the service provider for monitoring after approval of Quotation: With reference to Fig.6, it is observed that 14 out of 20 service provider came for monitoring within a week after approval of quotation.

Expected arrival time of the service provider for monitoring after the approval of Quotation: With reference to Fig.7, responses show that customers expect service to be provided within a week after approval of quotation. The current service providers of respondent are meeting the customer expectations of when to be served. Where finding says that 5customer among 20 expecting service within four days after approval of quotation, here lies the scope of improvement for monitoring laboratories.

Time taken to generate the report after testing: With reference to Fig.8, majority of service providers generate report in one week of testing. Many service providers are generating report after four days of monitoring and more than a week after monitoring.

Expect time for generating report of monitoring: With reference to Fig.9, from collected responses, it is observed customers are expecting reports of test within four days or one week of monitoring, no respondent mentioned about delivering of report as per their requirement.

NABL accreditation: With reference to Fig.10, it is observed that customers are selecting service provider who is NABL accredited. It is also observed that companies are following government guidelines.

MOEF approved lab: With reference to Fig.11, it is

observed that majority of people are aware about government rules and regulations for environmental monitoring and they are selecting their service provider for environmental monitoring considering certification by NABL and MOEF approval which also justify the awareness about the requirement of environmental monitoring by industries. **Factors made company to choose their current service provider of environmental lab:** With reference to Fig.12, the factors considered by the respondent are observed. Customer is more concerned about service offered. Cost, quality of work, consistency in report are another factors recorded. Customers also consider factors such as promptness, expertise in operation, credibility and experienced staff in laboratories to carry out the tests.

Suggestions to control air and water pollution from service provider: With reference to Fig.13, from the responses it is observed that current service providers are not only providing the services but they are also providing them suggestions for controlling air and water pollution which is an extra benefit that customer is getting from the service provider. This tends to attract the customers for availing service from them again.

How do company get the reference: With reference to Fig.14, majority of companies got the reference of their existing service customer from personal reference, word of mouth, publication, pollution control board, and from website. For creating awareness of laboratory business, online and offline marketing is essential.

Result And Discussion

Monitoring laboratories should create awareness and promote their services on every possible platform. Such as sending mails, communicating message to target customer in all possible efficient ways, printing pamphlets etc.

NABL accreditation and MOEF approval are the two most preferred parameters by companies for selecting service provider should be considered by monitoring laboratories as a competitive advantage.

Majority of respondents expect service within a week at every stage of monitoring process. Company should serve their customers within a week to their enquiry, doing monitoring and generating reports of monitoring.

Monitoring laboratory should focus on service, quality of report, consistency in report, calibration of equipment, promptness of testing, quick response to communication. As per research these are also the factors considered for selection of service provider by companies.

Conclusion

In the 21st century, the fate of the environment has become a critical issue in both developed and developing countries throughout the world. Population increases and technological advances are creating a burden on society by requiring continued expansion and concomitant resource use. Substantial evidence showing that such development has led to detrimental impacts on the environment. We also know that increased societal activities and demands are changing soil, water, air, climate, and resources in unexpected ways. This in turn has led to a renewed interest in protecting the environment and has focused attention on the concept of environmental monitoring.

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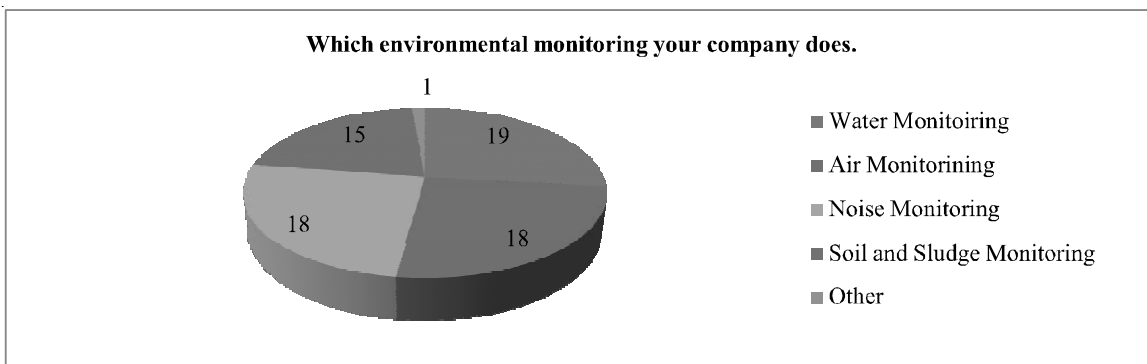


Fig 1

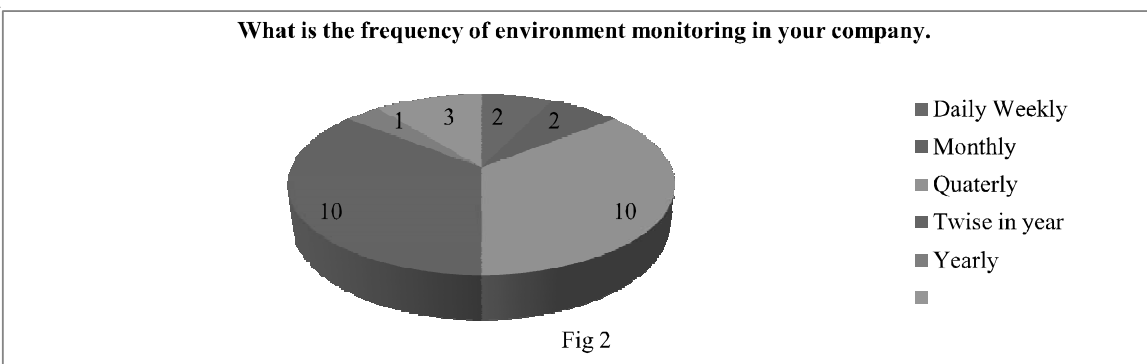


Fig 2

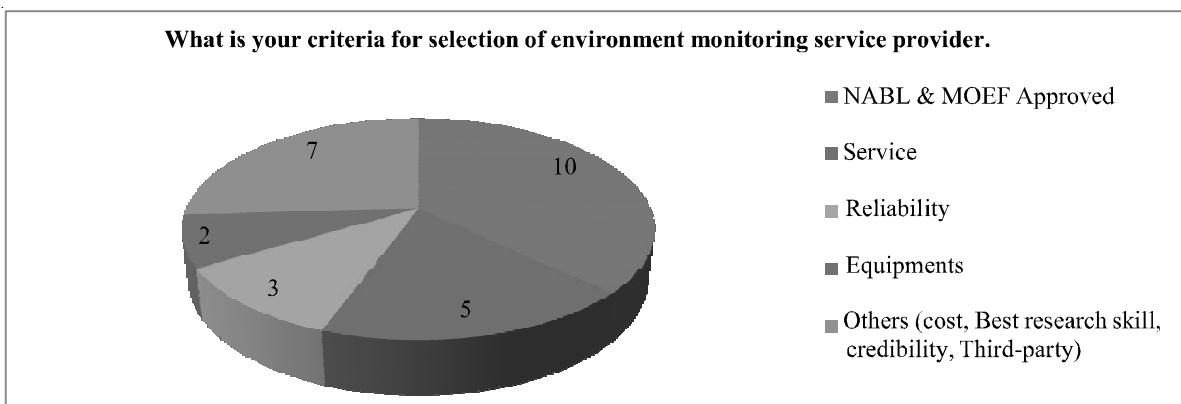


Fig 3

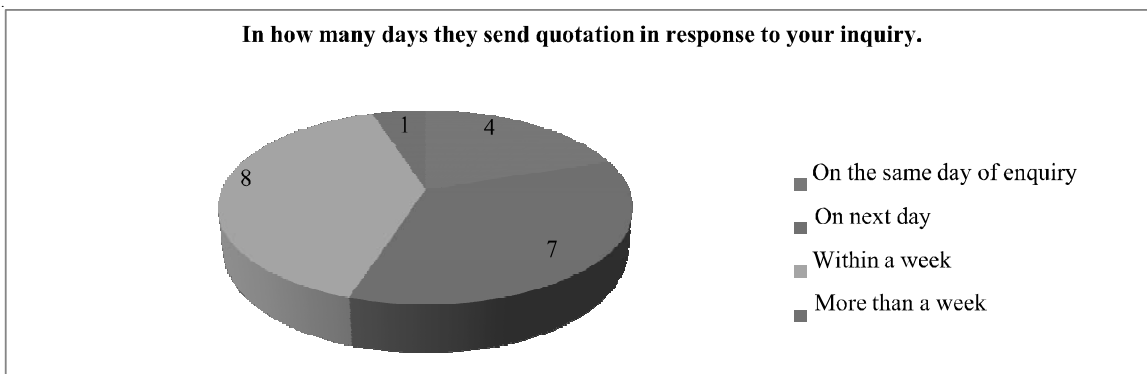


Fig 4

In how many days do you expect revert of quotation to your enquiry.



Fig 5

In how many days your service provider lab came for monitoring after your approval to their quotation.

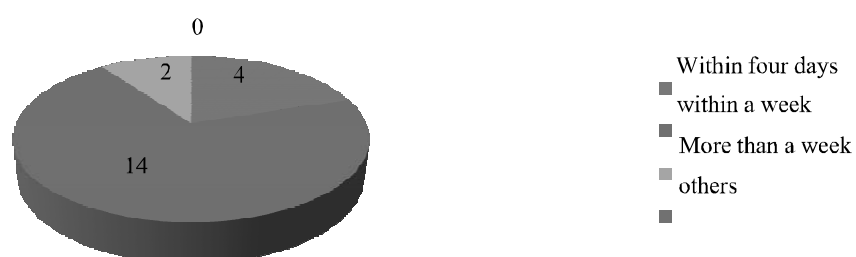


Fig 6

In how many days you expect environmental lab service provider should serve the customer after approval of quotation.

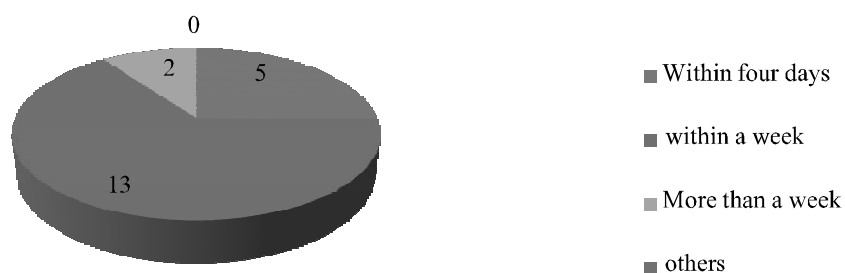


Fig 7

How many days your service provider lab takes to generate report after testing.

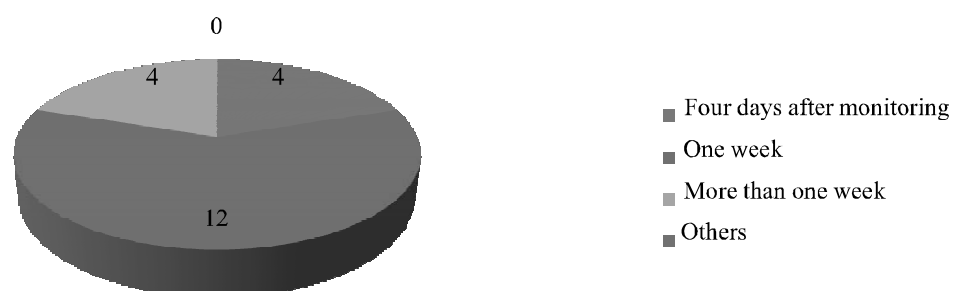


Fig 8

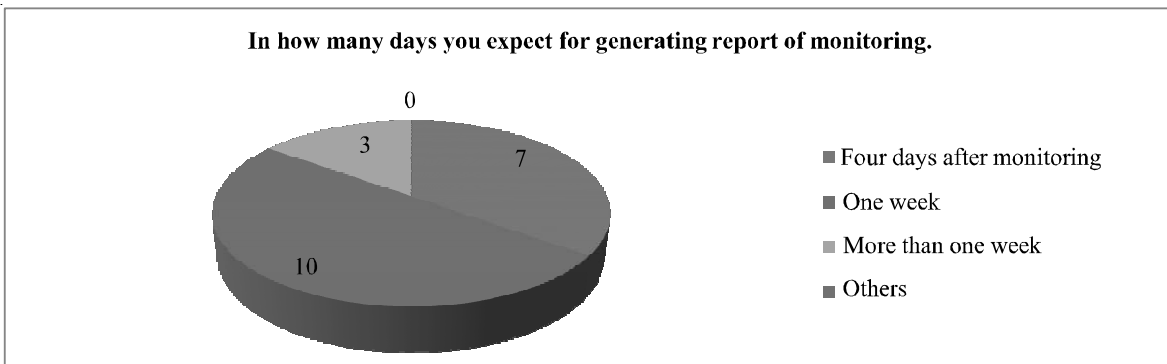


Fig 9

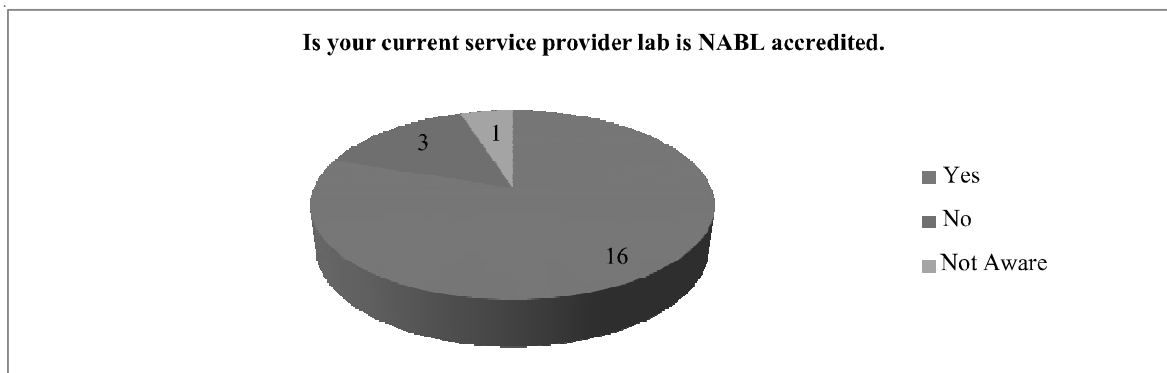


Fig 10

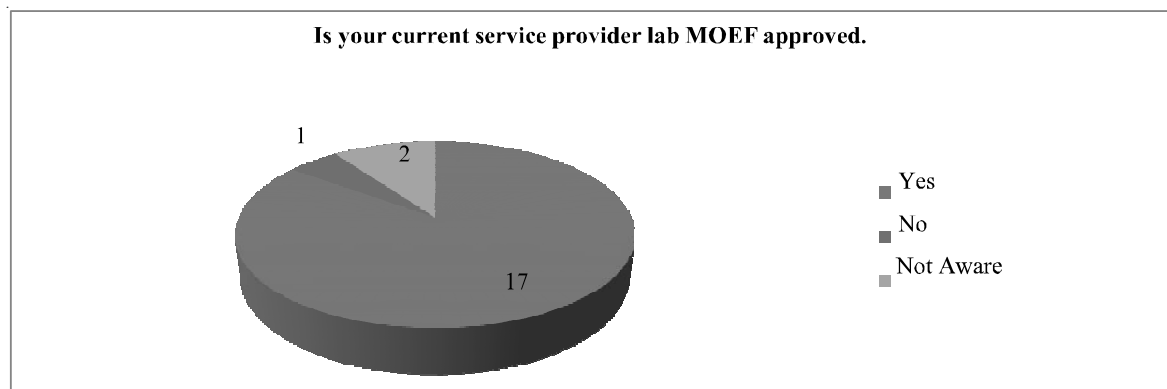


Fig 11

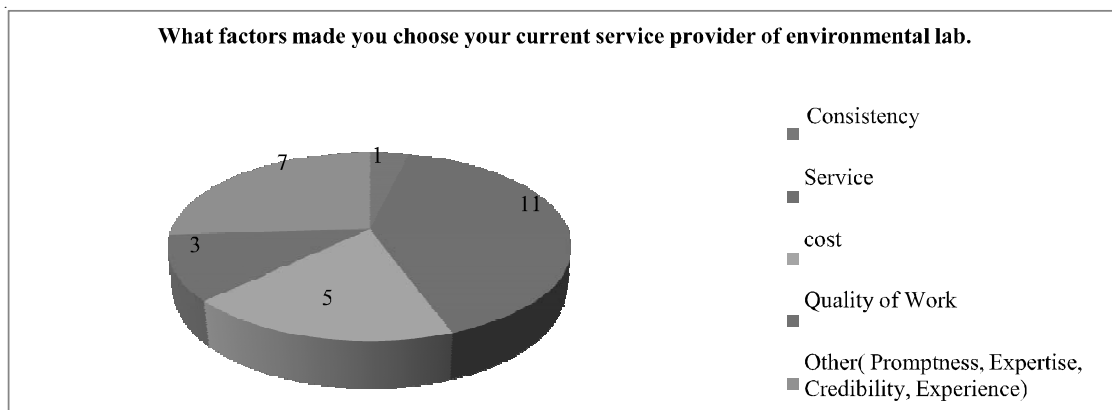


Fig 12

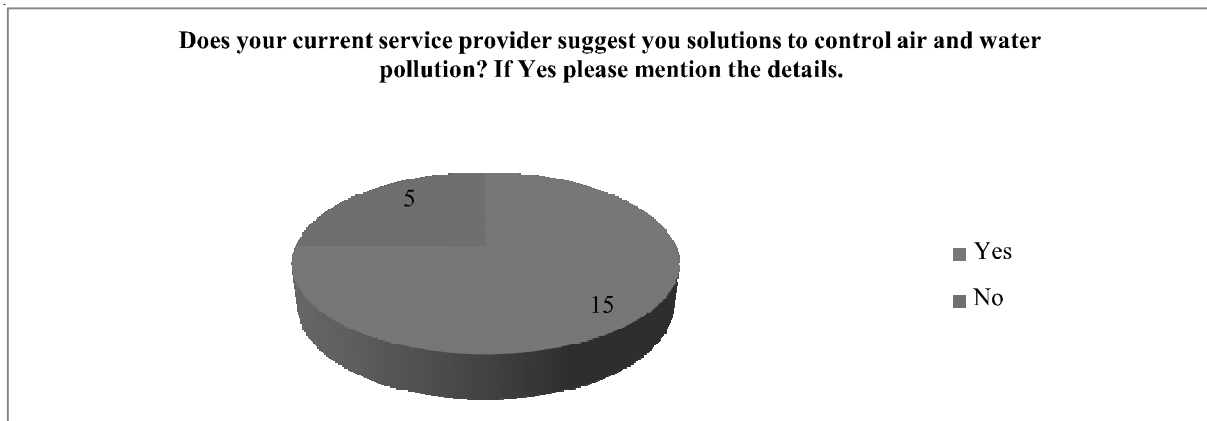


Fig 13

