

15 -ാം കേരള നിയമസഭ

12 -ാം സമ്മേളനം

നക്ഷത്ര ചിഹ്നം ഇല്ലാത്ത ചോദ്യം നം. 175

07-10-2024 - ൽ മറുപടിയ്ക്ക്

മലിനീകരണ നിയന്ത്രണ ബോർഡിൽ സയന്റിഫിക് അസിസ്റ്റന്റ്, അസിസ്റ്റന്റ് എൻജിനീയർ തസ്തിക

ചോദ്യം		ഉത്തരം	
ശ്രീ. റോജി എം. ജോൺ		ശ്രീ. പിണറായി വിജയൻ (മുഖ്യമന്ത്രി)	
(എ)	കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡിൽ ഐ .എം. ജി. 2013 ൽ നടത്തിയ വർക്ക് സ്റ്റഡി റിപ്പോർട്ടിന്റെ പകർപ്പ് ലഭ്യമാക്കുമോ;	(എ)	2013-ലെ ഐ.എം.ജി. വർക്ക് സ്റ്റഡി റിപ്പോർട്ടിന്റെ പകർപ്പ് അനുബന്ധമായി ചേർക്കുന്നു.
(ബി)	പ്രസ്തുത റിപ്പോർട്ടിൽ മലിനീകരണ നിയന്ത്രണ ബോർഡിൽ എത്ര സയന്റിഫിക് അസിസ്റ്റന്റ് തസ്തികകൾ പുതിയതായി സൃഷ്ടിക്കണമെന്നാണ് ശുപാർശ നൽകിയത്; ഇതിൽ നാളിതുവരെ എത്ര തസ്തികകൾ സൃഷ്ടിച്ചു; എത്ര അസിസ്റ്റന്റ് എഞ്ചിനീയർ തസ്തികകൾ സൃഷ്ടിക്കണമെന്നാണ് ശുപാർശ നൽകിയത്; ഇതിൽ നാളിതുവരെ എത്ര തസ്തികകൾ സൃഷ്ടിച്ചു വ്യക്തമാക്കുമോ ;	(ബി)	2013-ലെ ഐ.എം.ജി. വർക്ക് സ്റ്റഡി റിപ്പോർട്ടിൽ ജൂനിയർ സയന്റിഫിക് അസിസ്റ്റന്റ്/പോസ്റ്റ് ഗ്രാഡുവേറ്റ് സയന്റിഫിക് അപ്രന്റിസ് (PGSA) യുടെ 72 അധിക തസ്തികകളും അസിസ്റ്റന്റ് എഞ്ചിനീയർ/ ഗ്രാഡുവേറ്റ് എഞ്ചിനീയറിംഗ് അപ്രന്റിസ് (GEA) യുടെ 68 തസ്തികകളും ശുപാർശ ചെയ്തിരുന്നു. 03.10.2016 ലെ സ.ഉ.(കൈ) നം.8/2016/പരി നം ഉത്തരവ് പ്രകാരം 8 ജൂനിയർ സയന്റിഫിക് അസിസ്റ്റന്റ് തസ്തികകളും, 51 അസിസ്റ്റന്റ് എഞ്ചിനീയർ തസ്തികകളും സൃഷ്ടിച്ചിട്ടുണ്ട്.
(സി)	മലിനീകരണ നിയന്ത്രണ ബോർഡിൽ പ്രധാനപ്പെട്ട ലബോറട്ടറി പരിശോധനകൾ നടത്തേണ്ട സയന്റിഫിക് അസിസ്റ്റന്റ് തസ്തികയിൽ ഐ.എം.ജി. ശുപാർശ പ്രകാരമുള്ള നിയമനങ്ങൾ നടത്താതിരുന്നതിന്റെ കാരണം വ്യക്തമാക്കുമോ;	(സി)	2013ലെ ഐ.എം.ജി വർക്ക് സ്റ്റഡി റിപ്പോർട്ടിലെ ശുപാർശ പരിഗണിച്ച് 8 ജൂനിയർ സയന്റിഫിക് അസിസ്റ്റന്റ്, 51 അസിസ്റ്റന്റ് എഞ്ചിനീയർ എന്നീ തസ്തികകൾ സൃഷ്ടിക്കുകയും, അവയിൽ നിയമനം നടത്തുകയും ചെയ്തിട്ടുണ്ട്.
(ഡി)	സയന്റിഫിക് അസിസ്റ്റന്റ് തസ്തിക നിയമനത്തിലെ അഭാവം ലബോറട്ടറി പരിശോധനകൾ കാര്യക്ഷമമാക്കാതെ അഴിമതിക്ക് വഴിയൊരുക്കുന്നതായി പറയപ്പെടുന്നതിനാൽ പ്രസ്തുത തസ്തികയിലെ ഒഴിവുകൾ അടിയന്തരമായി നികത്തുന്നതിന് സർക്കാർ തയ്യാറാകുമോ ; വിശദാംശം വ്യക്തമാക്കുമോ?	(ഡി)	നിലവിലെ എല്ലാ ഒഴിവുകളും കേരള പബ്ലിക് സർവ്വീസ് കമ്മീഷന് റിപ്പോർട്ട് ചെയ്തിട്ടുണ്ട്.

സെക്ഷൻ ഓഫീസർ



INSTITUTE OF MANAGEMENT IN GOVERNMENT THIRUVANANTHAPURAM

(AN AUTONOMOUS BODY CONSTITUTED BY THE GOVERNMENT OF KERALA)



**WORK STUDY REPORT OF
KERALA STATE POLLUTION CONTROL BOARD**
(September 24th 2012 to January 24th 2013)

PART ONE



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PART ONE

Conducted by

INSTITUTE OF MANAGEMENT IN GOVERNMENT (IMG)

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Preface

Social Environment has a powerful influence on natural environment, on its use and misuse, of benefits and hazard creation. Environment, whether natural or social is, therefore, an objective phenomenon quantifiable in terms of acceptable standard of direct human living.

Subjective understanding of such an environment by people living within is a way of assessing environment, which focuses on the understanding of man's experience, use and awareness of environment through his own evaluation.

In this context, Kerala State Pollution Control Board plays a special role in environmental protection. The objective of the work-study was *to study the organizational structure, staff pattern and work method in KSPCB, thereby measure the workload of the officials in Kerala State Pollution Control Board.* The data from pilot sample study led to the final field study. Findings of the study resulted from the analysis of existing organizational structure and work measurement through the work study.

The findings may help to direct the attention of Kerala State Pollution Control Board to an aspect of staff requirement, which has not been paid sufficient attention for the last several years. The ultimate aim is to ensure improvement in service delivery to the public.


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Dr.Nivedita P.Haran IAS

Acknowledgement

It gives me immense pleasure to thank Kerala State Pollution Control Board (KSPCB) for giving Institute of Management in Government (IMG) this unique opportunity to learn emerging issues of governance with particular reference to staff requirement both from theoretical and practical point of view. We are thankful to Chairman and Member Secretary KSPCB for their wholehearted cooperation and participation in completing the study. Our thanks are due to the senior level officers, middle level officers and cutting edge level functionaries for providing us the details of work pattern and related functions.

Thanks are due to Dr. Nivedita P Haran, Director IMG for valuable and timely guidance, close monitoring of progress of the study and practical suggestions. She has taken genuine interest and bestowed abundant inspiration which has surely led to the fast and successful completion of this work.

This work couldn't be completed without the enthusiasm and hard work of our project team, Dr. R Jayasree, Associate Professor IMG, team member of the project, Mr. Nidhin Mathew, Mr. Nandu K, Miss. Divya Krishnan, Mr. Vysakh Udayan, Miss. Suchithra C K and Miss. Nija S Research Assistants of the project. Recognition is due to office staff of IMG for providing all facilities and administrative support for the completion of the study. Lastly, our thanks are due to graphic works and publication works team.

Dr.Leela Kumari.P

Principal Project Officer

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EXECUTIVE SUMMARY

The work study for Kerala State Pollution Control Board (KSPCB) is aimed *to streamline the present work load and assess the staff requirement in the existing situation* to enhance the service delivery of the board. The base year of the study is 2011. The objective of the work study is *to study the organizational structure, staff pattern and work method, thereby measure the work load of the officials in KSPCB*. Ensuring adequate organizational resources in KSPCB may bring a desired level of execution in the envisaged functions of the board in various areas covered by its mandate. In order to enhance the level of execution, capacity building is an urgent need in the organization in terms of professionally qualified manpower at various levels and strengthening of infrastructure.

Head Office, Regional Offices, Central Lab, Environmental Surveillance Centre, Ealoor, District Offices of Thiruvananthapuram, Alappuzha, Kottayam, Ernakulam, Palakkad and Kozhikode were taken as representative samples. The study covered various officials of KSPCB including Technical, Scientific and Administrative staff. Primary data were collected through in-depth interview, field observation and Focus Group Discuss at sample offices of KSPCB. Secondary data were collected from Office records, reports, registers, annual reports, past study reports, conference and review reports, etc. From the findings of the representative sample study, some critical parameters were identified; based on these critical parameters the questionnaire was formulated and was sent to other offices to assess the statewide staff requirement in the existing situation.

Major findings of the study indicate that Assistant Engineers are the cutting edge level functionaries of technical wing who perform certain core activities of the Board. However, in most of the offices they are heavily loaded with works which are both technical and operational in nature. In the scientific wing Work Measurement of Assistant Scientists reveals the scope for transferring some more scientific activities to this category. On the other hand, only one out of 15 posts of Senior Scientific Assistant is currently filled. The numbers of operational level staff like JSA/PGSA need to be strengthened; presently the Board is unable to give required attention to Research and Extension activities due to lack of adequate staff. Increasing the strength of supporting staff like Assistant and Typist would enhance the service delivery of the Board.


Ensuring advancement in IT, adequate infrastructure facilities and training to the officials are some of the major areas that need serious attention.

Staff Requirement

- 1 The Assistant Engineers are the cutting edge level functionaries who perform certain core activities of the Board. However, on analyzing the nature of work carried out by the Assistant Engineers, it is observed that few of their work is purely operational in nature, which can be completed by the staff working under them.
- 2 The work measurement of Assistant Scientist Category reveals that there is need for four more Assistant Scientists
- 3 As per the study additionally 19 Junior Scientific Assistant and Post Graduate Scientific Assistants are required.
- 4 The Work Measurement analysis of Assistants shows the need for 26 additional Assistants.
- 5 The Work Measurement analysis of Typist shows the requirement of 19 additional posts.

System Related

1. It is suggested that the activities performed by the Assistant Engineer, which are purely administrative in nature, can be transferred to the Administrative functionaries or the Ministerial staff, so that the Assistant Engineer can effectively concentrate more on Technical activities. Considering the quantity and importance of the work of the Assistant Engineers, it is necessary to strengthen this category. The work measurement shows the requirement of 99 Assistant Engineers in the Board. At present the Board has 32 Assistant Engineers posts. Hence there is requirement for 67 more AE posts. In recruiting additional Assistant Engineers, the Board may consider the experience of existing 58 Graduate Engineering Apprentices who are supporting or substituting the Assistant Engineers in the current situation.
2. Instead of increasing the number of Assistant Engineers to 99, additional post of Junior Engineer (JE) may be created with the proportion of 1:1

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- a. The rationale for suggesting the Junior Engineer (JE) is, at present in the scientific wing there are JSAs to support Assistant Scientist who is of the same rank as AE in the Technical Wing. So for the effective delivery of services at field level there is need for Junior Engineers (JE) for assisting the AE in certain important technical functions such as in sample selection, measurement, stack monitoring etc.
 - b. It is suggested that the qualification of Junior Engineer (JE) to be recruited may be fixed as Diploma in relevant disciplines.
 - c. As regards the recruitment of Junior Engineers KSPCB may formulate adequate Promotion policies with amendment to the special rules.
3. The work Analysis of Assistant Scientist shows the scope for transferring some more scientific activities to this category
 4. Though the Scientific Wing of the Board comprising of Post Graduate Scientific Apprentice at the lowest level to the Chief Environmental Scientist at the highest level is effectively managing sample collection and testing, it is seen that the Board is not able to give ample attention to Research and Extension activities. Out of these functionaries in the Scientific Wing the study reveals that only one out of 15 posts of Senior Scientific Assistant is currently filled. This can be attributed to the fact that Senior Scientific Assistants are promotion posts of Junior Scientific Assistants and at present, the Board does not have any permanent Junior Scientific Assistants.
 - a. The study suggests this system of PGSA may continue. However the present practice of PGSAs authenticating documents in place of AS/JSA is to be discouraged as PGSAs are apprentices on short term contract basis and hence with no accountability. In order to ensure effective monitoring, it is suggested that JSA/PGSA should work under the guidance and mentorship of AS/SSA.
5. The proportion of JSA and PGSA may be 1:1
 6. The study findings show that there is an anomaly in the salary scale of JSA and this may be reexamined and necessary steps may be taken.
 7. Lack of permanency of personnel is a hindrance for the smooth functioning of KSPCB. Hence it is recommended that the recruitment policy of KSPCB have to be reframed.

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8. The analysis of the work distribution among the functionaries to different Offices shows that it is not uniform. Some of the Technical and Scientific personnel are engaging in ministerial work also. For the smooth functioning of KSPCB, the present uneven work distribution is to be examined and scientific work distribution may be done.
 9. File management is to be professionalized, and the maintenance of required registers is to be ensured. KSPCB is a suitable organization to introduce digitized file management system.
 10. A Management Information System may be setup for enhancing the quality of decision making.
 11. Stack monitoring of factories which is a critical work should be performed by the Assistant Engineer itself.
 12. Environmental Surveillance Centre functions 24 hours with the support of 4 Assistant Engineers. There are no rules and regulations regarding the work distribution. The Technical Wing and the Scientific Wing are functioning through their own adjustments. Therefore the following options may be considered:
 - a. Shift system may be introduced at Environmental Surveillance Centre with certain intervals.
 - b. KSPCB should formulate a scientific pattern of shift system of 12/8 hours.
 13. KSPCB needs to establish comprehensive organizational system with proper Reporting and Monitoring mechanism.
 14. Major functional units and sub units may be created for catering to critical functional areas of KSPCB (consent administration, hazardous wastes and substances, capacity building both physical and Human Resource Development, Revenue generation, Legal measures and Grievance and Complaint Redress Mechanism).
 15. Decentralizing administrative and financial powers at different levels of the hierarchy within the Board is recommended.
 16. A customer friendly front office may be set up in all offices with Help Desk.
 17. A conversion plan may be prepared to convert the Administrative staff into technical support staff. They may be provided adequate skill training to act as technical support staff.

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18. The service of external consultants may be initiated in emergency cases to avoid delay.
 19. A scientific Promotion Policy may be framed which has provision for incentives, Best Employee Award, Good Service Entry, etc. to the competent functionaries as a motivational tool would be helpful.
 20. The existing Purchase Committee may be restructured by including administrative staff for maintaining transparency on financial matters.
 21. Research and Development wing should be formed for the effective functioning of KSPCB. Model environmental impact assessment studies, major projects on environment development, may be done through this Research cell.
 22. Constituting a Disaster Management Cell equipped with latest equipments, trained man power, vehicle and ambulance at regional level for addressing emergencies like Tanker accident, Chemical explosions, etc is necessary.
 23. A Public Relation wing may be constituted for documentation, Information dissemination and coordination of extension activities related to environment protection.
 24. Centralized Special monitoring cell may be constituted to overview the key activities.
 25. Efforts may be initiated to ensure convergence of services between Local Self Government Institutions, Department of Health and Family Welfare, Police Department and Insurance Department.
 26. Decentralization of functions with Local Self Government Institutions may be implemented to reduce workload.
 27. Introduce a single window approach for Consent Administration.
 28. The responsibility to be fixed to the licensee while giving consent for starting industries/enterprises/smaller industrial units.
 29. An Affidavit may be introduced as mandatory for all categories of enterprises
 30. License fee may be enhanced for all types of industries.
 31. Fine system may be introduced as penalty for violating environment protection rules.
 32. In order to take advantage of information technology, the offices may be equipped with up to date computer facilities, e-Office system and LAN in all the offices of KSPCB.

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33. Create a Computer based Data Network and Connectivity with Head office, Regional office and Laboratories.
 34. Computerization of Consent Administration with on line application facility may be set up so that status of the consent order can be known to the public.
 35. Introduce a time target action plan, citizen's charter and Right to Service in KSPCB. System
 36. Personal Register, Inward Register, Outward Register should be maintained in every office.
 37. The recruitment policy may be re-examined and reframed to induct persons with suitable academic qualification.
 38. The Annual report of KSPCB should be prepared and published on time.

Infrastructure Related

- 1 Since lack of adequate infrastructure facilities including vehicle for inspection cause a major hurdle in the activities, step may be taken to upgrade the existing infrastructure. The laboratory may be equipped with state-of-the-art facilities and adequate safety measures.
- 2 A mobile laboratory may be set up at regional level and up-gradation of existing labs may be initiated so that these labs are equipped with state-of-the-art testing facilities.

Capacity Building

- 1 Constitute a Centralized Training Institute for capacity building of functionaries. Proper Induction training, refresher training and other special training on required areas may be provided to functionaries periodically.
- 2 The Key officials of KSPCB may be provided special training on secret policing since they have to chase the Polluters (Hotels, Flats, and Hospitals etc.). They may be provided with a security teams as and when required.

The work study suggests additional staff requirement, system change, infrastructure development and capacity building. This work study provides more scope for a detailed process study with a long term point of view for the overall development of KSPCB.

CHAPTER- I
INTRODUCTION

1.0 INTRODUCTION

The United Nations Conference of 1972 was a milestone in the history of environment protection. Indian Parliament enacted the Water (Prevention and Control of Pollution) Act on 23rd March 1974. In 1976, India became the first country to make provisions for the protection of environment in its Constitution through the 42nd Amendment¹.

Kerala is one of the 12 States in India whose legislatures passed resolutions requesting the Indian Parliament to make laws to prevent and control water pollution. The State, to a great extent, is still not free from the hazards of industrialization². The integration of environmental considerations into development policies, plans and projects is particularly critical since many investment decisions are made in short period of time but they affect the environment and outcomes for many years to come. International experience has clearly demonstrated that *'the grow now clean up later'* approach is costly in the long run while environmental measures can be more easily incorporated in new investment & projects. Key priorities in the coming years for the conservation of environment should include enhancing environmental conditions including air quality, access to safe drinking water, sanitation, waste management, and improving governance of national resources with a focus on biodiversity conservation.

Society needs infrastructure, civic services, development & industries but their adverse impact on the environment needs to be controlled. The people of Kerala are highly conscious of the need to protect the environment³. The Kerala State Board for Prevention and Control of Water Pollution was constituted by the Government of Kerala on 12.09.1974 and thus became the first such State Board in India. The State Board was renamed as The Kerala State Pollution Control Board (KSPCB) in 1984 on being entrusted with the implementation of the Air (Prevention and Control of Pollution) Act, 1981.

1.1 PURPOSE OF THE KSPCB

The KSPCB is the apex body constituted by the Government of Kerala, for taking various measures to control and abate Environmental Pollution in the State. The role and scope of the

¹ http://www.kerala.gov.in/index.php?option=com_content&id=3372&Itemid=2438

² Wilson, P R. *A preliminary report on manpower requirement and financial viability*. CUSAT: Kochi.

³ http://www.kerala.gov.in/index.php?option=com_content&id=3372&Itemid=2438, *Op.Cit.*

Board has been expanded to encompass the field of water pollution, air pollution, sound pollution and overall environmental pollution including those from chemicals, hazardous wastes, battery processing, hospital wastes, solid wastes etc.

The Water and Air Act provides for the prevention and control of pollution and for promotion of wholesomeness of water, land and air. The Water Cess Act provides for levy and collection of Cess on water consumed by persons carrying out certain industries in order to augment the resources of Central and State Boards and to encourage conservation of water. The Environment Protection Act provides for the overall protection of the environment.

The Board is working under the Environment Department, Government of Kerala. It has its Head Office at Thiruvananthapuram. The enforcement of the above Stated Acts and Rules are being implemented through three Regional Offices situated in Thiruvananthapuram, Ernakulam, and Kozhikode. Each district of the State has a District Pollution Control Board Office with a mini laboratory which functions as the ultimate authority in that district. There is also an Environmental Surveillance Centre at Eloor, Ernakulam and the Central Laboratory at Ernakulam.

1.2 CONSTITUTION OF KSPCB

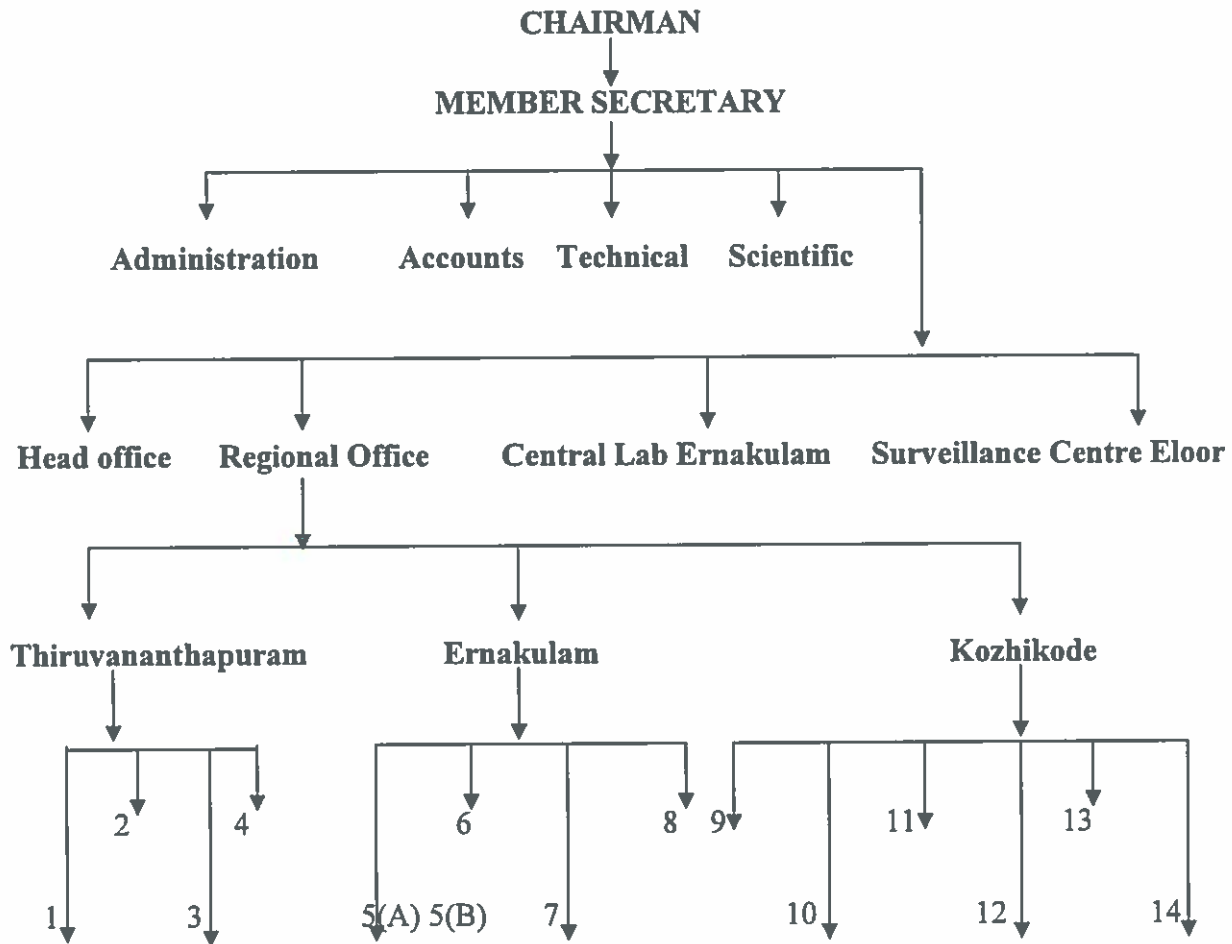
The KSPCB has been first constituted in September 1974 by the State Government vide G.O.(MS) No.205/74HD dated 12-09-1974 exercising the powers vested under the Section 4 of the Water (Prevention and Control of Pollution) Act 1974. According to Section 4(2) of Water (Prevention and Control of Pollution) Act, 1974, the State Board consists of the following members:-

- A. A full time Chairman, being a person having special knowledge or practical experience in respect of matters relating to environmental protection or a person having knowledge and experience in administering institution dealing with functions of the Board, to be mentioned by the State Government.
- B. Such numbers of officials not exceeding five to be nominated by State Government to represent the Government.

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- C. Such number of persons not exceeding five to be nominated by the State Government from amongst the members of the local authorities functioning within the State.
 - D. Such number of non-officials not exceeding three to be nominated by the State Government to represent the interests of agriculture, fishery or industry or trade or any other interest, which in the opinion of the State Government ought to be represented.
 - E. Two persons to represent the companies or corporations owned controlled or managed by the State Government to be nominated by the Government.
 - F. A full time member secretary qualified in public health engineering and having practical experience relating to environmental protection to be appointed by the State Government.

According to Section 4 of the Air (Prevention and Control of Pollution) Act, 1981, the State Board constituted under Section 4 of the Water Act is deemed to be the Board constituted under the Air Act also.

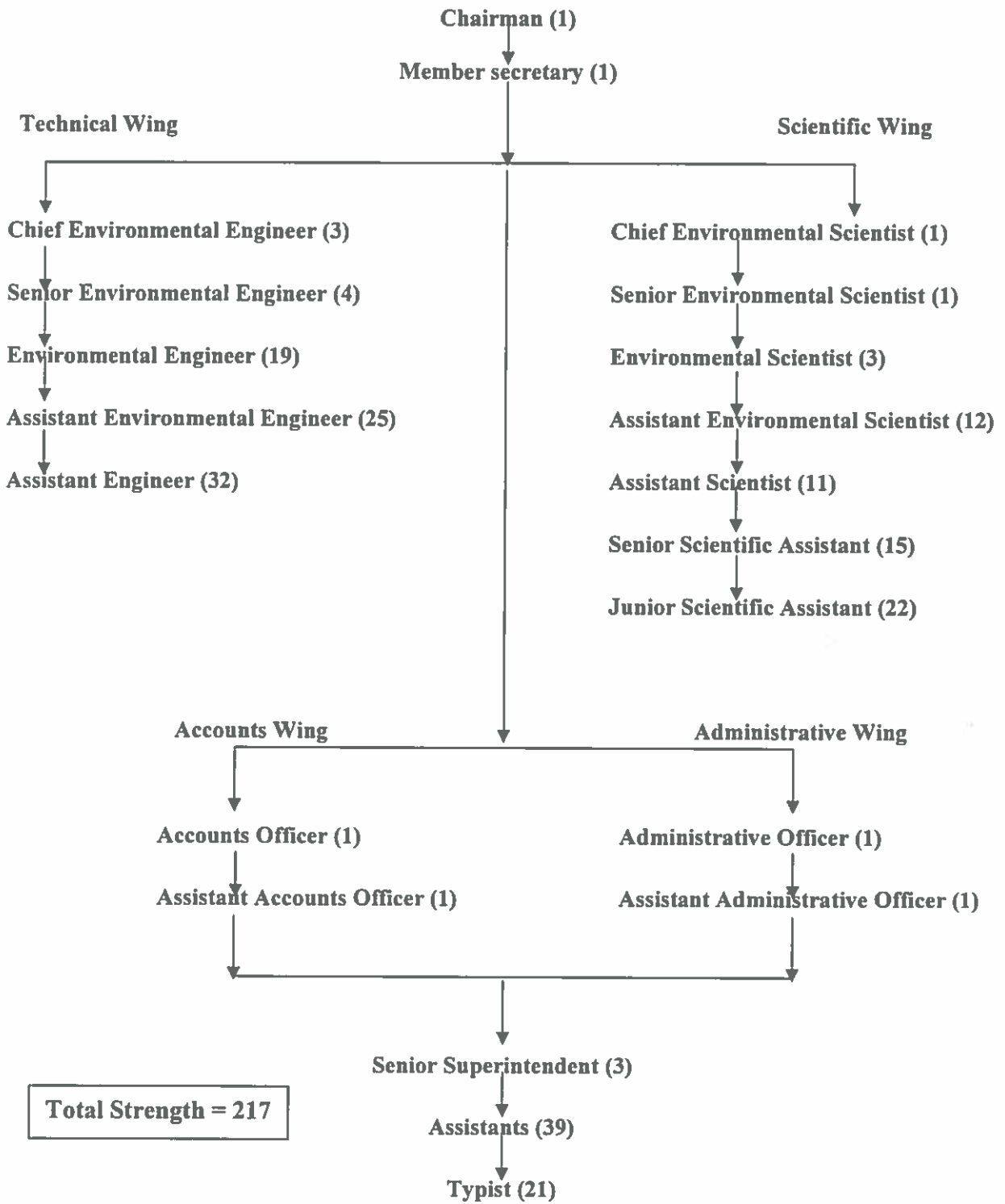
1.3 ORGANIZATIONAL STRUCTURE OF THE BOARD



Numbers 1 to 14 denotes district Offices under each Regional Office

- | | |
|------------------------|---------------|
| 1. Thiruvananthapuram | 8. Thrissur |
| 2. Kollam | 9. Malappuram |
| 3. Pathanamthitta | 10. Wayanad |
| 4. Alappuzha | 11. Palakkad |
| 5. Ernakulam (A) & (B) | 12. Kozhikode |
| 6. Idukki | 13. Kannur |
| 7. Kottayam | 14. Kasaragod |

1.4 SANCTIONED STRENGTH IN THE BOARD



1.5 FUNCTIONS OF THE BOARD

The Acts administered by the Board:

- The Water (Prevention and Control of Pollution) Act, 1974.
- The Water (Prevention and Control of Pollution) CESS Act, 1977.
- The Air (Prevention and Control of Pollution) Act, 1981.
- The Environment (Protection) Act, 1986.
- The Public Liability Insurance Act, 1991.

The Rules administered by the Board:

- The Water (Prevention and Control of Pollution) Rules, 1976.
- The Water (Prevention and Control of Pollution) CESS Rules, 1978.
- The Air (Prevention and Control of Pollution) Rules, 1984.
- The Environment (Protection) Rules, 1986.
- The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.
- The Manufacture, Use, Import, Export and Storage of Hazardous Micro organisms, Genetically Engineered Organisms or Cells Rules, 1989.
- The Public Liability Insurance Rules, 1991.
- The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- The Biomedical Waste (Management and Handling) Rules, 1998.
- The Recycled Plastic Manufacture and Usage Rules, 1999.
- The Noise Pollution (Regulation and Control) Rules, 2000.
- The Municipal Solid Wastes (Management and Handling) Rules, 2000.

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- The Batteries (Management and Handling) Rules, 2001.
 - The Ozone Depleting Substances (Regulation and Control) Rules, 2000.
 - Environment Impact Assessment and Public Hearing Notifications, 2006.
 - The Hazardous Wastes (Management Handling and Trans boundary movement) Rules, 2008.
 - The E- Wastes (Management Handling) Rules, 2011.

Functions under Water Act

- To plan a comprehensive program for the prevention, control or abatement of pollution of water bodies and to secure the execution thereof.
- To advice the State Government on any matter concerning the prevention, control or abatement of water pollution.
- To collect and disseminate information relating to water pollution and the prevention, control or abatement thereof.
- To encourage, conduct and participate in investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution.
- To collaborate with the Central Board in organizing the training of persons engaged or to be engaged in programs relating to prevention, control or abatement of water pollution and to organize mass education programs.
- To inspect sewage or trade effluents, works and plants for the treatment of sewage and trade effluents and to review plans, specifications or other data relating to plants set up for the treatment of water, works for the purification thereof and the system for the disposal of sewage or trade effluents or in connection with the grant of any consent as required by this Act.

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- To lay down, modify or annul effluent standards for the sewage and trade effluents and for the quality of receiving waters (not being water in an interstate stream) resulting from the discharge of effluents and to classify waters of the State.
 - To evolve economical and reliable methods of treatment sewage and trade effluents, having regard to the peculiar conditions of solids, climate and water resources of different regions and more especially the prevailing flow characteristics of water in streams and wells which render it impossible to attain even the minimum degree to dilution.
 - To evolve methods of utilization of sewage and suitable trade effluents in agriculture.
 - To lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream taking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents.

Functions under the Water CESS Act

- To receive water consumption returns from persons liable to pay Cess.
- To assess the Cess payable by the concerned person carrying on any special industry or local authority.
- To allow rebate on the Cess payable by any person carrying on any industry or local authority who install requisite plant for treatment of sewage or trade effluent.
- To collect Cess from assesses.
- To take or cause to take action against defaulters.

Functions under the Air Act

- To plan a comprehensive programme for prevention, control and abatement of air pollution and to secure the execution thereof.
- To advise the State Government on any matter concerning prevention, control or abatement of air pollution.
- To collect and disseminate information relating to air pollution.

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- To collaborate with the Central Board in organizing the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of air pollution and to organize mass education programmes relating thereto.
 - To inspect, at all reasonable times, any control equipment, industrial plant or manufacturing process and to give, by order, such directions to such persons as may consider necessary to take steps for prevention, control or abatement of air pollution.
 - To inspect air pollution control areas at such intervals as it may think necessary, assess the quality of air therein and take steps for the prevention, control or abatement of air pollution in such areas.
 - To lay down, in consultation with the Central Board and having regard to the standards for the quality of air laid down by the Central Board, standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into atmosphere from any other source whatsoever not being a ship or an aircraft, provided that different standards for emission may be laid down under this clause for different industrial plants having regard to the quantity and composition of emission of air pollutant into the atmosphere from such industrial plants.
 - To advise the State Government with respect to the suitability of any premises or location for carrying on any industry which is likely to cause air pollution?
 - To perform such other functions as may be prescribed or as may from time to time, be entrusted to it by the Central Board or the State Government.
 - To do such other things and to perform such other acts as it may think necessary for the proper discharge of its functions and generally for the purpose of carrying into effect the purposes of this Act.

Functions under Environment Act

- To extend its activities to prevent and control of pollution of water and air to all aspects of environment
- To implement and enforce the provisions under the Hazardous Wastes (Management and Handling) Rules, 1989.
- To implement and enforce the provisions under the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.

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- To implement and enforce the provisions under the Biomedical Waste (Management and Handling) Rules, 1998.

Functions under the Public Liabilities (Insurance) Act

- To make application to court, to restrain contained under Section 13(1) from handling hazardous substances, to implement the order of the court under Section 13(3) (b) and to recover cost thereof under Section 13(4).
- To file complaint in court.
- To receive and act upon notice under Section 18(b) of intention to make complaint to court.

1.6 ENVIRONMENTAL ISSUES OF KERALA

The State of Kerala, with an area of **38,863 km²** is situated between the Arabian Sea in the west and the Western Ghats to the east, and having a coastal region of 580 km in length, while the State itself varies from 35–120 km in width.

Natural resources, both renewable and non-renewable, form the basis of our very existence on this terrestrial globe. These natural resources also form the basis of all our scientific advancements technological progress, improvement in agriculture and industrial advancement. It is an indisputable fact that human beings all over the world consuming natural resources are trying to conquer nature instead of preserving and protecting it. Some people think that environment problems are merely physical problems though it goes beyond this limit. Pollution has a serious impact on the environment and society. The deterioration of physical qualities of the earth will lead to social problems. Doubtless to say, policies without an environment orientation are incomplete. Due to this particular reason, environmental concern is a serious & debated issue in the global arena.

Water Pollution

It is estimated that 70% of the surface water resources are polluted and that in large stretches of major rivers, water is not even fit for bathing, leave alone drinking. Polluted water is the source of most of the diseases that affect, cripple or kill millions of Indians every year.

Kerala is rich with 44 rivers which together yield 70300Mm³of water annually. Rivers play a vital role in the development and sustenance of life. In Kerala all rivers are rain fed and the main source of protected water supply is rivers, the quality of which depends on the concentration of organic and inorganic constituents generated by natural and anthropogenic activities. Excessive exploitation of river water for agriculture and domestic/drinking purposes too imparts severe adverse impact on the river ecosystems of Kerala.

Bharathapuzha (catchments area of 6186 km²), the largest river system in Kerala, is also not free from unscientific unplanned human interventions, which leads to insufficient water flow in lean periods and excessive discharge of pollutants from various sources.⁴

Periyar is the longest and largest discharge potential river of Kerala. Its lower reaches were heavily polluted by the Eloor industrial zone discharging waste into the river, which have alarming levels of DDT, Endosulphan, Hexa, Trivalent Chromium, Lead, Cyanide, and BHC.

Fish mortality on a large scale occurred in the Chaliyar River near Calicut in the region between Elamaram and Pallikkadavu, large quantities of wastewater from the Gwalior Rayon's Factory located at Mavoor was seen discharged into the river through the emergency outlet at Elamaram. Apart from the low pH causing the mortality, the disappearance of these fishes from the heavily polluted areas and the dislocation of the Nereid worms from their habitat would also reveal the possibility of occurrence of some metallic poison in the water. Government of Kerala has now decided to close down the Pulp and Fiber divisions of the Factory until pollution abatement measures are completed.

In 1997, the Legislative Committee on Environment had reported that the pollution caused by the release of raw sewage into the Killi River near the Jagathy Bridge was at an 'explosive' level. The same year, the State Pollution Control Board issued notice to the Kerala Water Authority to stop discharge of untreated sewage into the river. However, lack of political and administrative will has hampered efforts to clean up the river.

⁴ http://www.cpcp.nic.in/upload/NewsItems/NewsItem_152_Final-Book_2.pdf

Rivers like Kallada, Pamba etc. also faces some unique environmental issues. Lack of clean drinking water, frequent electricity interruptions during the night, heavy rush of pilgrims, insufficient medical facility, deforestation, and lack of road facilities etc. add to the intensity of pollution in Pamba during pilgrimage seasons.

Clean water has become a precious commodity and the quality is threatened by activities such as agricultural discharge, domestic sewage, municipal solid waste, burial grounds and industrial effluents in Kerala. Ground water quality problems are also associated with the presence of excess salinity, iron, fluoride, hardness and coliforms etc. Low pH, high iron content, high hardness, high TDS and salinity & creeping saline infections are common quality problems in the coastal areas. Excess chloride concentration has also been reported from the coastal zone. Instances are reported when drinking water supplied particularly to the people in the urban areas was not properly purified.

Backwaters are said to be the backbone of tourism industry of Kerala. Nevertheless, unfortunately it is also not free from the hands of pollution. Vembanad Lake is the prime victim; the contamination from various industries spreads to Vembanad Lake and to Arabian Sea. This lead to a large-scale devastation of aquatic life in the backwaters, the agricultural land and it is also affecting the health of the population in the area. Fishery resources from this region were the major means of income for thousands of families belong to this area. At present, backwater fishing in this region is gradually vanishing.

Lakes such as Ashtamudi, Sastamkotta, and Vellayani are endangered due the unscientific management. Floating plants such as Salvinia (popularly known as African algae), Eichornia, (the water hyacinth) Azolla and Pistia, all well known for the nuisance they create, have occupied a large surface area of the inland water bodies of Kuttanad as well as lakes of Kerala.

Air Pollution

Vehicles and industries are mainly responsible for the deterioration of air quality. Both create noise and emit air pollutants. Impact of vehicular emission and noise is widespread while

that due to industrial emission is limited to areas around the industries. Advanced manufacturing techniques have considerably reduced both noise and emission of automobiles. Cleaner production process have emerged which reduce emissions from some industries. However, the benefits are being counteracted by the rapid increase in the numbers of vehicles as well as industries. This growth is pronounced in urban areas. Air quality is therefore under increased stress around urban areas.

Solid Waste

Almost all the major cities and towns of Kerala are facing very serious environmental problems because of the lack of scientific waste removal mechanisms. Very small proportions of households are covered under the sewerage network. As a result, many diseases thought to have been eradicated are returning with renewed vigor. Cities like Thiruvananthapuram, Cochin, Kozhikode is distressing a lot with their Municipal solid waste.

Solid waste issues of Lalur, Vilappilashala, and Panamkuttichira are exclusively reported. The Guruvayoor Township, which has attracted worldwide interest as a pilgrimage centre, has also been facing serious problems due to untreated waste substances. It is realized that the Guruvayoor pilgrimage centre, where about three crores of people visit every year has no scientific waste management facility. The wastes of Guruvayoor Township are deposited in the nearby Chavakkadu Panchayath causing untold hardship to the people.

Crusher & Mining

The Stone crusher unit of Kerala is another area that needs special attention. The main complaint of the people was that inhaling the air containing the dust formed as a result of blasting of rocks caused several diseases in the area such as silicosis, asthma, and allergy. Sound pollution produced during the operation of the stone crusher units created hearing problems and disturbed the learning capacity of schoolchildren in the area. The dust and fragments of rocks from the units fly in the air and fall into the nearby wells and water bodies, polluting them.

Mines are resources of the state and an input for development. But illegal & unrestricted mining in violation of extant rules & conditions often indicates lack of discipline & is also a source of corruption. Mining and mining industry put together, could cause irrevocable damage to environment. This has happened in Kerala in spite of its lower capital-intensive mineral-based industries. There are several industrially important mineral deposits of different origin in abundance in the State. There are environmental problems arising out of mining by the public sector company (Kerala Clays and Ceramic Product Ltd) situated at Madaiparampil in Kannur district.

Bio-Medical Waste

A peculiar feature of Kerala is that while the State accounts for just 3 per cent of the nation's population, the hospital bed strength is 27 per cent. However, most hospitals still do not have an efficient biomedical waste management system because of the irrational approach that investment on waste disposal is a waste, for it brings no return. Biomedical waste means any waste which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities or in the production or testing of biological preparations. There were also several complaints about the accumulation of hazardous waste in Kozhikode, Thrissur and Alappuzha Medical Colleges.

Deforestation

Kerala's forest resources are under the severest stress. It is diminishing so fast that within the next 50 years, the quantum of forest and related natural resources may reach a level much below the minimum required for sustaining life. There are problems related to deforestation, which are identical in almost all parts of Kerala, areas like Jeerakappara - Achankovil, Thuasharagiri, Nellyampathy in Kavalpura and Sabarimala. Encroachments in the Western Ghats are also a serious threat.

“Save Silent Valley”, movement is a best example for the concern of Keralites over environment and ecological balance. Silent valley is an evergreen tropical forest in the Palakkad

district of Kerala. The movement was started in 1973 to save the Silent Valley Reserve Forest from being flooded by a hydroelectric project. Following the protest, the valley was declared as Silent Valley National Park in 1985.

Pollution and development are like two sides of a coin, the so-called globalization urbanization; industrialization, liberalization & privatization should provide a fillip to development. On the other hand, if left unrestricted it can have an adverse impact of increased pollution. Industrial areas are not flourishing in Kerala. Anyhow, Greater Cochin industrial cluster is included in 24 existing Critically Polluted Areas (CPA) by Central Pollution Control Board (CPCB).

In the present scenario sustainable development, in essence, implies achieving progress without causing permanent damage to the environment. Sustainable development refers to a mode of human development in which resources use aims to meet human need while preserving the environment, so that these needs can be met not only at present but also for future generations. Changes in weather pattern, sea level rise, thinning of the polar ice and the hole in the ozone layer are symptoms of damage already inflicted by man's onslaught on nature

1.7 SCOPE OF THE STUDY

The Kerala State Pollution Control Board (KSPCB) has the difficult task of striking the delicate balance between environmental sustainability and industrial progress. The Board was initially entrusted with the responsibility of controlling water pollution restoring and maintaining the wholesomeness of water bodies in the State.

The responsibilities have widened over the years and now include implementation of many other statutes aimed at protecting the environment. In spite of that its resource base however, (comprising skills, work force, infrastructure etc.) has largely remained inadequate. Additional resources, commensurate with increasing responsibilities, have not been provided to the organization. In the circumstance, the Board planned to increase its efficiency and accuracy, which required it to introspect into its own working.

Further, due to increasing environmental consciousness, activities are increasing which require a multidisciplinary scientific/technical base. As a result, of inadequate organizational

resources, Kerala State Pollution Control Board (KSPCB) has not been able to achieve the desired level of implementation in the various areas covered by its mandate. In order to enhance the level of implementation, capacity building is an urgent need in the organization through professionally qualified manpower at senior levels and strengthening of infrastructure.

It is in this context that, KSPCB entrusted Institute of Management in Government (IMG) to undertake the work-study with the objective “of streamlining the present work load and assessing the staff requirement in the existing situation”.

1.8 EXPECTED OUTPUT OF THE STUDY

- Revised strength of personnel at different levels
- Suggestions for strengthening the staff pattern
- Suggestions and Recommendations for enhancing the effectiveness of KSPCB

CHAPTER- II
METHODOLOGY

2.0 AIM OF THE STUDY

The main aim of the study is **“to streamline the present work load and assess the staff requirement in the existing situation”**.

2.1 OBJECTIVES

The objective of the work study is ***‘to study the organizational structure, staff pattern and work method, thereby measure the workload of the officials in KSPCB’***. The base year of the study is 2011.

2.2.1 SUB OBJECTIVES

- To conduct organizational analysis
- To study the work method
- To measure the workload of different levels of the functionaries
- To identify the areas which need immediate attention for staff requirement.

2.2 AREA SELECTED FOR THE STUDY

The representative samples for work study was taken from South, Central and North region of Kerala. Head Office, Regional Office & the District Office of Thiruvananthapuram and District Office at Alappuzha represent the Southern region. Regional Office, Central Lab, Surveillance Centre & two District Offices at Ernakulam and District Office of Kottayam represent the Central region. Kozhikode Regional Office, District Office and Palakkad District Office were taken from Northern region.

The selection criteria specified as:

- The most densely populated districts - Thiruvananthapuram, Alappuzha and Kozhikode
- Water prone disease area - Alappuzha
- District with excess number of Rubber related industries- Kottayam
- The most industrialized district - Ernakulam
- District with hazardous environmental pollution - Palakkad

2.3 SAMPLE OF THE STUDY

The sample consists of categories of Officers such as Chief Environmental Engineers, Chief Environmental Scientist, Environmental Engineers, Assistant Environmental Engineers, Administrative Officers, Assistant Engineers, Assistant Scientists, Administrative Assistants, Graduate Engineering Apprentices, Post Graduate Scientific Assistants and Typists. The total sample size of the study was 197, which includes both permanent and temporary hands.

2.4 TOOLS

Following tools were used for the data collection.

- Semi structured Interview schedules.
- Guided questions for Focus Group Discussion
- Proforma for assessing performance level/ Work method/ Work measurement

These tools were developed after a Participatory workshop conducted by IMG with major functionaries of KSPCB.

2.5 PILOT STUDY AND PRE-TESTING

As part of the work study a pilot study was conducted in the Head Office, Regional Office and District Office of Thiruvananthapuram to validate the tools of data collection and assess the feasibility of the study.

2.6 DATA COLLECTION

Primary data were collected from different Offices of KSPCB. Other tools such as FGD and field observation were also used to collect the primary data. Secondary data were collected from Office records, reports, registers, annual reports, past study reports, conference and review reports etc.

2.7 METHOD OF DATA COLLECTION

As a part of data collection representative samples from Thiruvananthapuram, Alappuzha, Kottayam, Ernakulam, Palakkad and Kozhikode were taken to study the work method and deriving to the measurement. From the findings of the representative sample study,

some critical parameters were identified. Based on these critical parameters the questionnaire was formulated and was sent to other offices. The output of interview schedule and questionnaire was useful for finalizing the total requirement of man power and formulating suggestions and recommendations.

2.8 VALIDATION WORKSHOP

Two participatory workshops were conducted to finalize the report.

- Preliminary workshop for formulating the strategies for setting up the study.
- Validation workshop for finalizing report.

2.9 ANALYSIS OF DATA

Collected data were coded and tabulated for further analysis. Organizational analysis was conducted to arrive at organizational structure. The focus was to streamline the present workload in the section, rationalize the distribution of the subjects and to clear the ambiguity in the present work pattern. Work content sheet was prepared for each category of the functionaries to measure the time taken for each work. The workload in man-hours in respect of each staff with excess workload or surplus capacity, as the case may be, was determined by the work study team.

2.10 REPORT PRESENTATION

The entire report is structured into six chapters. First chapter on Introduction brings out the relevance of KSPCB in environmental protection and scope of the study. Second chapter is about methodology of the study. Third Chapter consists of organizational analysis. Fourth chapter deals with the work method and measurement, which includes a systematic recording and critical examination of existing and proposed ways of doing work. Chapter five explains findings and conclusions. Sixth chapter deals with suggestions and recommendations.

2.11 DURATION OF THE STUDY

Duration of the study was four months.

2.12 LIMITATIONS OF THE STUDY

- Lack of properly updated registers
- Short duration of the study
- Dissimilarities in work distribution among functionaries
- Lack of uniform pattern in work allocation in Kerala State Pollution Control Board (KSPCB)
- Temporary nature of appointment

Consultation Workshop for Methodology Finalization on 26/09/2012



Welcom by Dr. R. Jayasree



Project Introduction by Dr. Leela Kumari P.



Key note address by Dr. Nivedita P. Haran IAS



Remarks by Shri. K. Sajeew, Chairman KSPCB



Key officials of KSPCB in the Workshop

Report Validation Workshop



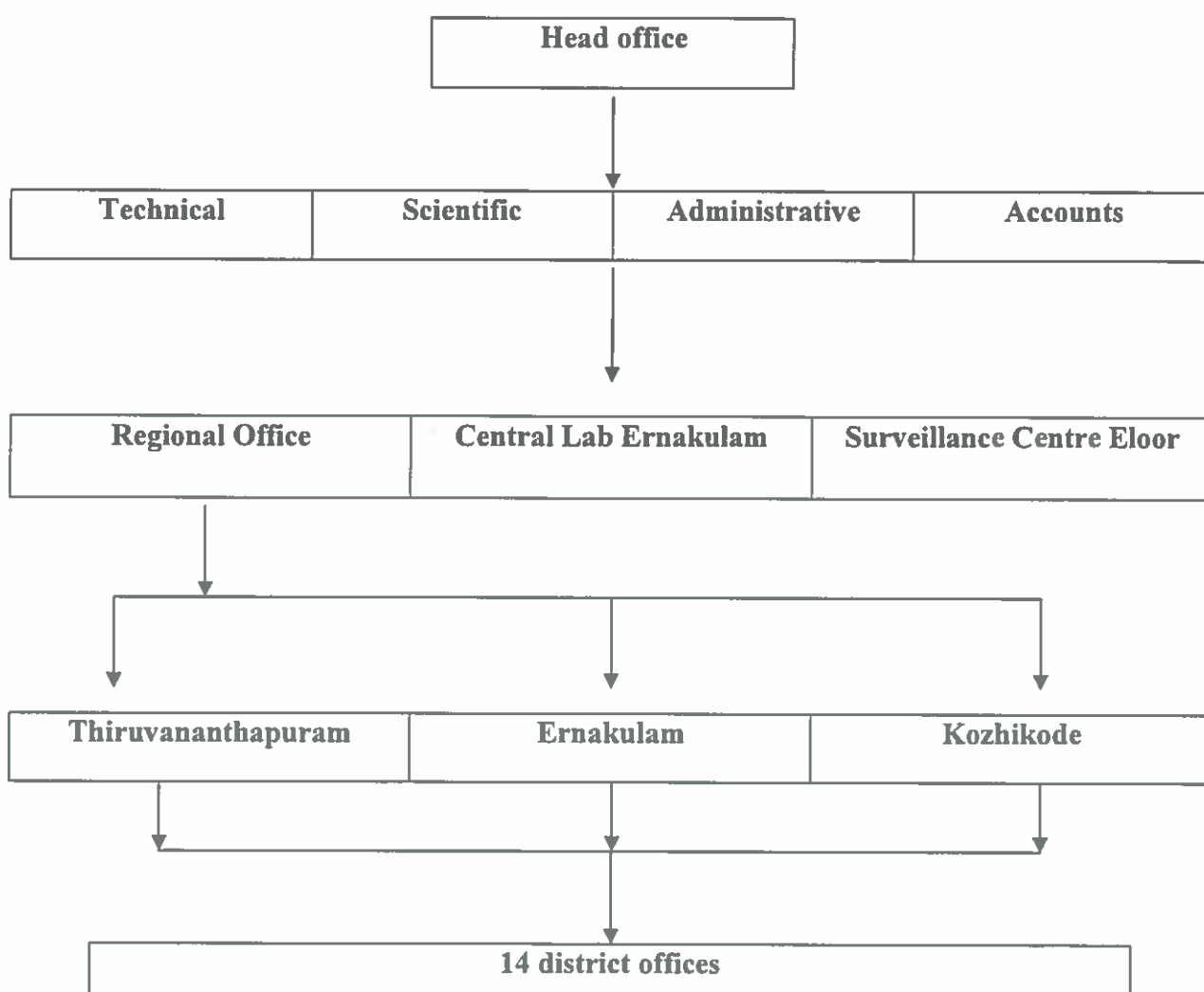
Focus Group Discussion



CHAPTER- III
ORGANIZATIONAL ANALYSIS

An Organizational Analysis is a process by which an organization's systems, capacity and functionality are assessed in order to increase its efficiency, performance, and output⁵. As the objectives and the techniques are continually changing in a dynamic organization, a continuous and systematic review of the organization is necessary. An analysis of the organization by means of a functional, structural and positional organization chart would reveal its strength and also weakness⁶.

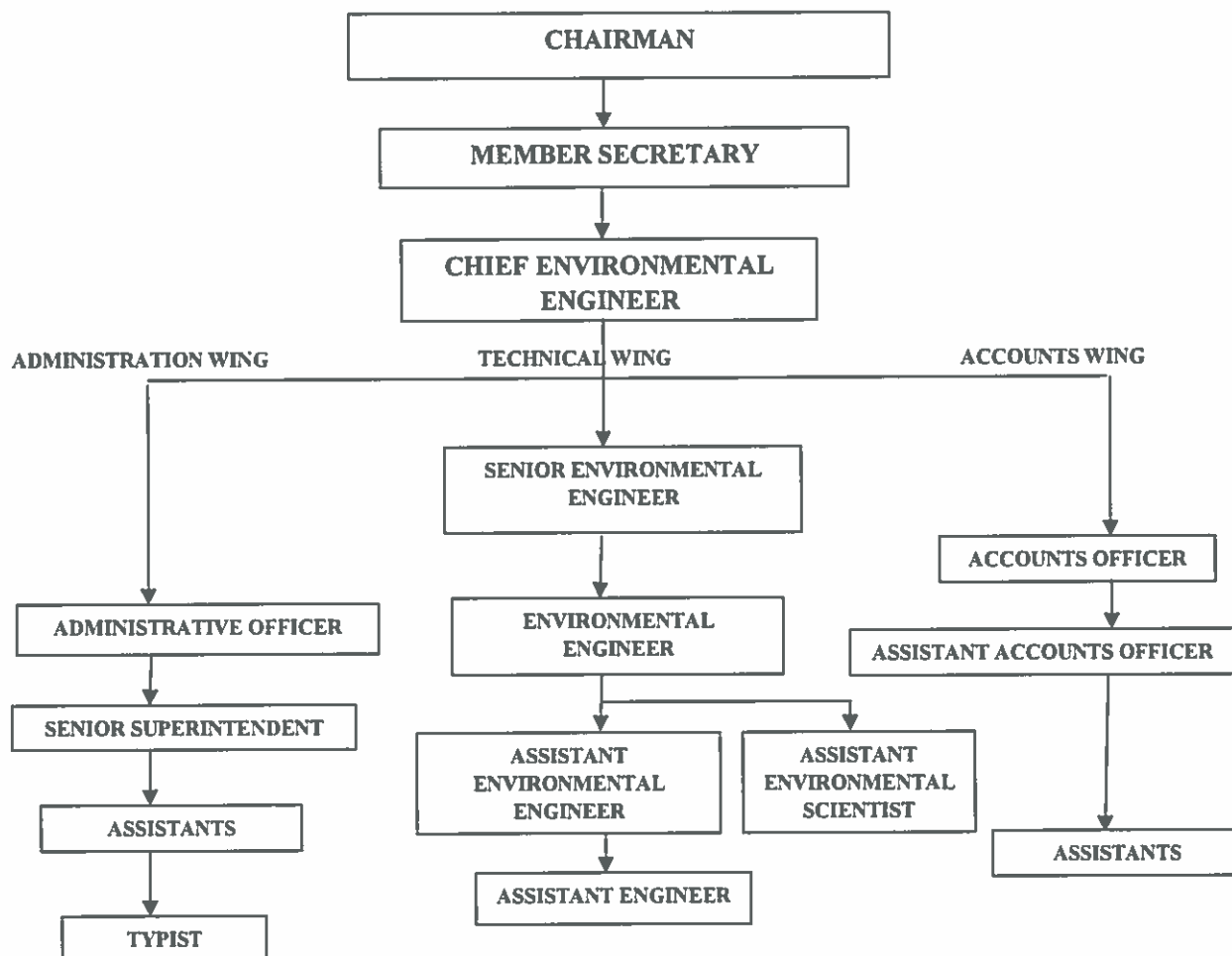
ORGANIZATIONAL STRUCTURE OF KERALA STATE POLLUTION CONTROL BOARD



⁵ http://en.wikipedia.org/wiki/Organizational_analysis

⁶ N K Panda, *Work Study in Administration*, Allied Publishers limited, Bombay, 1966

3.1 ORGANIZATIONAL STRUCTURE OF HEAD OFFICE, THIRUVANANTHAPURAM

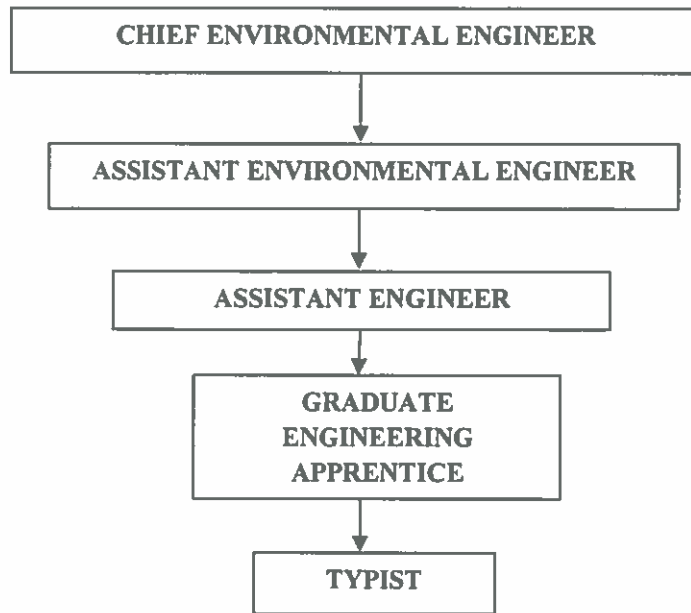


The KSPCB is headed by Chairman. There is a Member Secretary and a Chief Environmental Engineer under the Chairman at the Head Office. There are three Wings in the Head Office namely, Technical Wing, Administrative Wing and Accounts Wing. The functions of Technical Wing in Head Office are distributed between two Senior Environmental Engineers. Under Senior Environmental Engineers, there are four Environmental Engineers, three Assistant Environmental Engineers and four Assistant Engineers. Apart from this there is an Assistant Environmental Scientist (AES) who is also functioning under the Technical Wing. *But it is interesting to note that there is no separate Scientific Wing.*

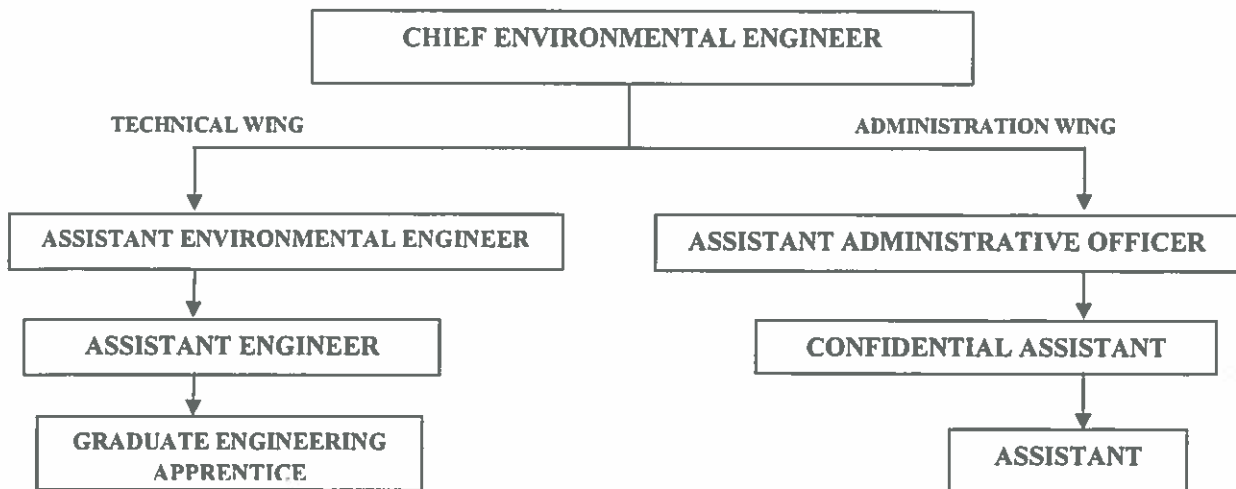
The Administrative Wing of Head Office is headed by Administrative Officer (AO) who is on deputation from Secretariat. The AO supervises all activities of Administrative Section of

the Board. There are two Senior Superintendents, six Assistants and a Typist to support the Administrative work. The Accounts Section of Head Office comprises of an Accounts Officer who is on deputation from secretariat, an Assistant Accounts Officer, five Assistants and a Typist.

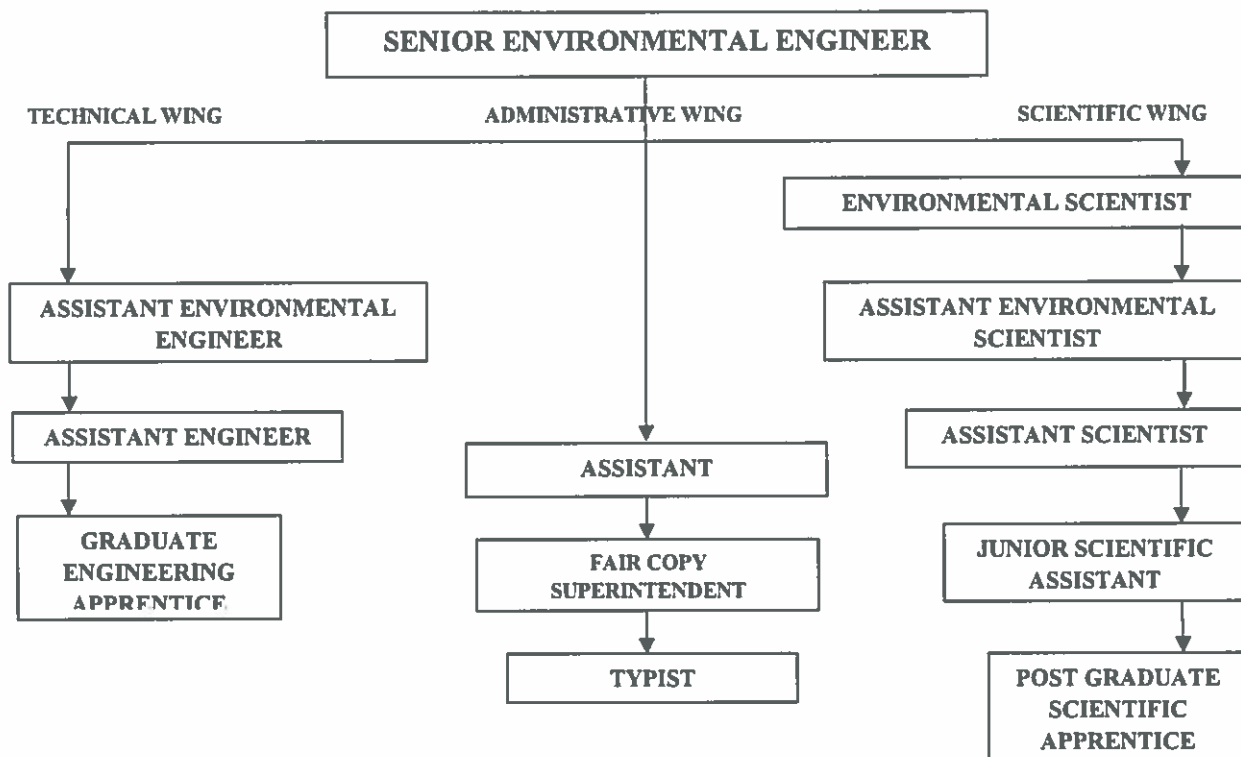
3.2 ORGANIZATIONAL STRUCTURE OF REGIONAL OFFICE, THIRUVANANTHAPURAM



3.3 ORGANIZATIONAL STRUCTURE OF REGIONAL OFFICE, ERNAKULAM



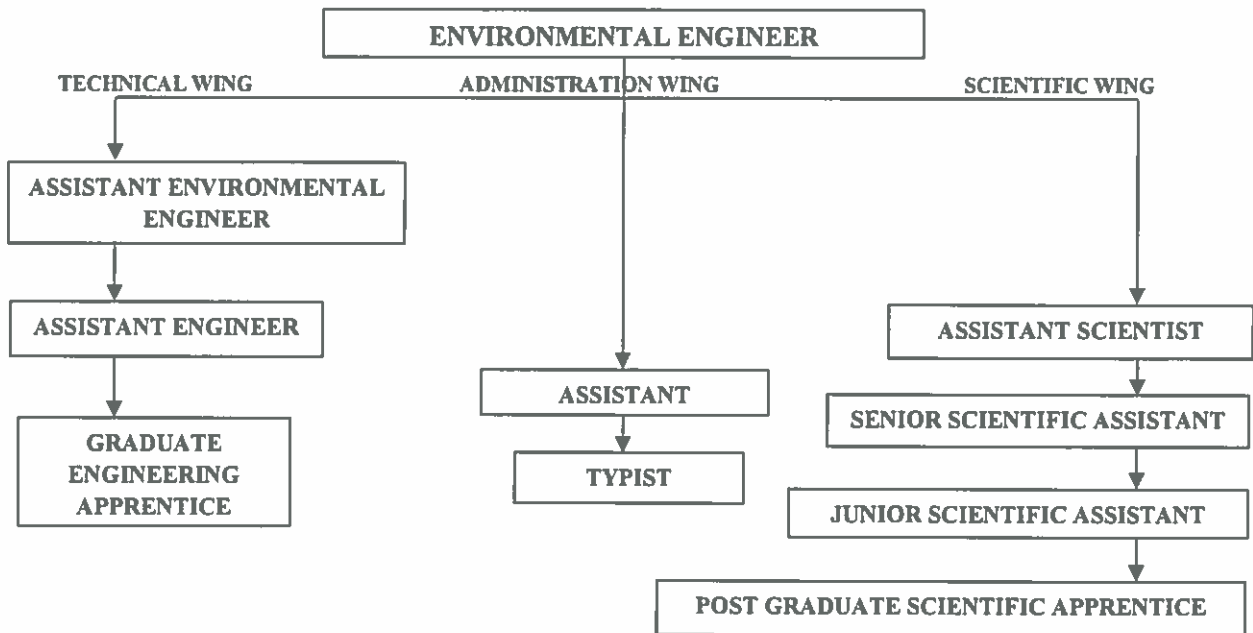
3.4 ORGANIZATIONAL STRUCTURE OF REGIONAL OFFICE, KOZHIKODE



The KSPCB has Regional Offices at Thiruvananthapuram, Ernakulam and Kozhikode. The District Offices at Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzha comes under Thiruvananthapuram Regional Office. Ernakulam Regional Office consists of two District Offices and Environmental Surveillance Centre of Ernakulam and District Offices at Kottayam, Idukki and Thrissur. The Northern Districts such as Malappuram, Palakkad, Kozhikode, Wayanad, Kannur and Kasaragod are functioning under Kozhikode Regional Office. Chief Environmental Engineer is the head of Regional Offices at Ernakulam and Thiruvananthapuram. At present at Kozhikode the post is vacant. So it is headed by a Senior Environmental Engineer. The Technical Section of Regional Office comprises Assistant Environmental Engineers, Assistant Engineers and Graduate Engineering Apprentices. The Administrative Wing is manned by the functionaries such as Assistant Administrative Officer, Assistants and Typists. There is no separate Wing for Accounts in Regional Office; hence the Administrative Wing looks after the functions of accounts also. Regional Offices of Thiruvananthapuram and Ernakulam have no

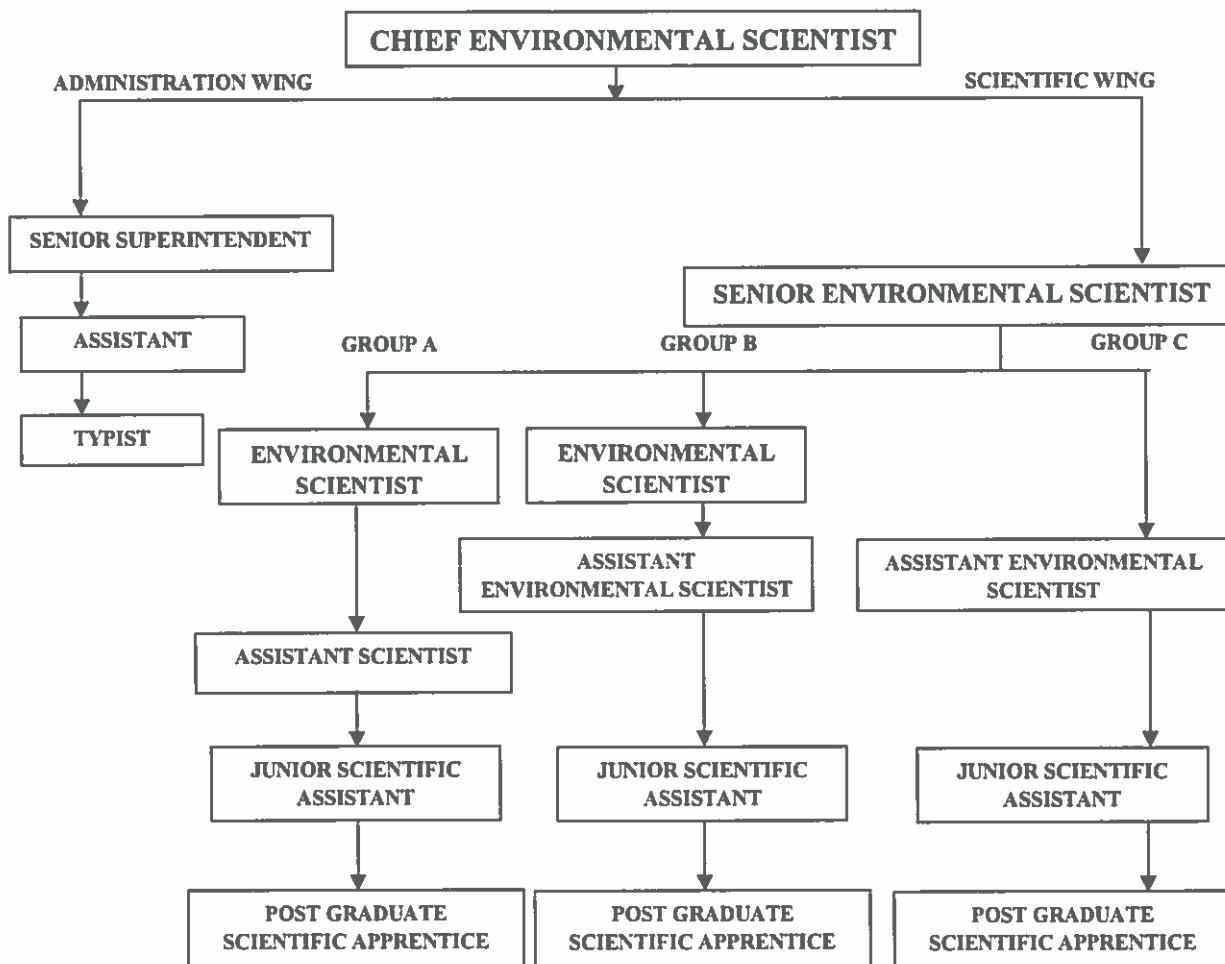
scientific wing. However, the Regional Office Kozhikode has Scientific Section with an Environmental Scientist as its head. There is an Assistant Environmental Scientist, an Assistant Scientist, five Junior Scientific Assistants and four Post Graduate Scientific Apprentices for doing the analytical works.

3.5 ORGANIZATIONAL STRUCTURE OF DISTRICT OFFICES



Environmental Engineer is the head of the District Office and controls the whole activities of Technical, Scientific and Administrative functions. It is only in Ernakulam District Office, the head is Senior Environmental Engineer. The Technical Wing consists of Assistant Environmental Engineers, Assistant Engineers and Graduate Engineering Apprentices. The District Offices are attached with laboratory for doing scientific analysis of Technical matters. In Ernakulam the same function is carried out by Central Lab. In Kozhikode District Office the lab is attached to Regional Office. The Scientific Section of each District Office comprises of Assistant Scientist, Senior Scientific Assistants, Junior Scientific Assistants and Post Graduate Scientific Apprentices. It is noted that the post of Senior Scientific Assistant is vacant in all District Offices except Kottayam. The Administrative Section consists of an Assistant and Typist in each District Office.

3.6 ORGANISATIONAL STRUCTURE OF CENTRAL LAB, ERNAKULAM



The Central Laboratory is functioning as the supreme head of all the laboratories. The Central Lab is headed by Chief Environmental Scientist (CES), who coordinates all the laboratories of District Offices. The Central Lab is responsible for collecting monthly progress report and forwarding them to the Head Office. The Senior Environmental Scientist (SES) is supervising the functions of Environmental Scientist (ES), Assistant Environmental Scientist (AES), Assistant Scientist (AS), Junior Scientific Assistant (JSA) and Post Graduate Scientific Apprentice (PGSA). At present there is 30 staff in the Scientific Wing of Central Lab.

For the purpose of work arrangement, Scientific Wing is divided into three groups namely Group 'A', Group 'B' and Group 'C'. From the diagrammatic representation, it is understood that group A and B are headed by Environmental Scientist (ES) and group C by, an Assistant Environmental scientist (AES), due to the absence of an ES. In group 'A', ES is

assisted by AS, two JSA and six PGSA. In group 'B' four JSA and four PGSA are working under the supervision of AES and ES. Group 'C' is functioning with an AES, three JSA and three PGSA, in which AES directly reports to SES.

The Central Lab has an Administrative Wing which is headed by Senior Superintendent (SS). Senior Superintendent is assisted by two Assistants and a Typist.

3.7 PROFILE OF THE FUNCTIONARIES

SL NO	DESIGNATION	REQUIRED QUALIFICATION	EXPERIENCE
1	CHIEF ENVIRONMENTAL ENGINEER	A) Bachelors Degree in Engineering /Technology in Civil/Chemical/ Environmental branch of a recognized university. B) Post Graduate Degree in Environmental Engineering/Technology or Public Health Engineering/ Technology of a recognized University	Promotion from the post of Senior Environmental Engineer
2	SENIOR ENVIRONMENTAL ENGINEER	A) Bachelors Degree in Engineering /Technology in Civil/Chemical/ Environmental branch of a recognized university. B) Post Graduate Degree in Environmental Engineering/Technology or Public Health Engineering/ Technology of a recognized University	Promotion from the post of Environmental Engineer
3	ENVIRONMENTAL ENGINEER	A) Bachelors Degree in Engineering /Technology in Civil/Chemical/ Environmental branch of a recognized university. B) Post Graduate Degree in Environmental Engineering/Technology or Public Health Engineering/ Technology of a recognized University	Promotion from the post of Assistant Environmental Engineer
4	ASSISTANT ENVIRONMENTAL ENGINEER	Bachelors Degree in Engineering Technology in Civil/Chemical/Environmental branch of a recognized University	3 years experience as Assistant Engineer
5	ASSISTANT ENGINEER	Bachelors Degree in Engineering Technology in Civil/Chemical/Environmental branch of a recognized University	Direct recruitment

6	GRADUATE ENGINEERING APPRENTICE	Bachelors Degree in Engineering Technology in Civil/Chemical/Environmental branch of a recognized University	-
7	CHIEF ENVIRONMENTAL SCIENTIST	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	Should have 2 years experience as Senior Environmental Scientist
8	SENIOR ENVIRONMENTAL SCIENTIST	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	Promotion from the post of Environmental Scientist
9	ENVIRONMENTAL SCIENTIST	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	Promotion from the post of Assistant Environmental Scientist
10	ASSISTANT ENVIRONMENTAL SCIENTIST	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	3 years experience as Assistant Scientist
11	ASSISTANT SCIENTIST	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	5 years experience as Senior Scientific Assistant/Junior Scientific Assistant
12	SENIOR SCIENTIFIC ASSISTANT	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	Promotion from the post of Junior Scientific Assistant
13	JUNIOR SCIENTIFIC ASSISTANT	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	Direct recruitment
14	POST GRADUATE ENGINEERING APPRENTICE	A second class Masters Degree with 50% marks in any branches of Chemistry/Life Science/Environmental Studies	-
15	ADMINISTRATIVE OFFICER	By deputation of an Officer not below the rank of Under Secretary in the Administrative Secretariat	-
16	ACCOUNTS OFFICER	By deputation of an Officer not below the rank of Under Secretary in the Finance Department, Secretariat	-
17	ASSISTANT ADMINISTRATIVE OFFICER	A Bachelors Degree of a recognized University or its equivalent	Promotion from the post of Senior Superintendent

18	ASSISTANT ACCOUNTS OFFICER	A Bachelors Degree of a recognized University or its equivalent	Promotion from the post of Senior Superintendent
19	SENIOR SUPERINTENDENT	A Bachelors Degree of a recognized University or its equivalent	Promotion from the post of Assistant
20	ASSISTANT	A Bachelors Degree of a recognized University or its equivalent	Direct recruitment
21	TYPIST	A)A pass in SSLC or equivalent qualification B) Must have passed-Type writing English (Higher) and Malayalam (lower) KGTE or equivalent qualification	Direct recruitment

3.8 FUNCTIONS OF THE FUNCTIONARIES

3.8.1 TECHNICAL FUNCTIONS

For analyzing the functions of Technical Staffs (CEE, SEE, EE, AEE and AE) of KSPCB, the functions were divided into envisaged and actual functions.

<u>ENVISAGED FUNCTIONS</u>	<u>ACTUAL FUNCTIONS</u>
<ol style="list-style-type: none">1. Implementation of Acts and Rules2. Periodical inspections3. Collection of effluent samples4. Consent administration5. Follow up of consent administration6. Legal issues related to pollution7. Complaints and grievance redress8. Data dissemination under Right to Information(RTI) Act9. Inspection and monitoring of industries and other sources of pollution to assess pollutant generation, collection, treatment and disposal.10. Direct Stack monitoring11. Attending of various meetings12. Public Hearing13. Legislative Committee14. Under taking of projects related to pollution15. Public awareness programmes16. Conducting of seminars, workshops etc	<ol style="list-style-type: none">1. Implementation of Acts and Rules2. Periodical inspections3. Collection of effluent samples4. Consent administration5. Drafting of consent and other reports6. Court cases enquiry7. Filing of counter Affidavit on the behalf of Board in Legal matters8. Complaint enquiry.9. Co-Ordination of stack monitoring10. Answering of Legislative and Parliamentary questions11. Preparation of RTI queries12. CESS collection13. Preparation of annual reports14. Attending of various meetings15. Public hearing16. Accounts verification17. Putting up of all files18. Undertaking of projects19. Public awareness programmes20. Maintenances of building21. Maintenances of vehicles

Envisaged functions are those functions which should be performed by the functionaries which are mandatory. In the present context, actual functions mean those functions which are performed by the functionaries at present. While comparing envisaged functions with actual functions certain discrepancies are noted. The following envisaged activities are not performed by the technical functionaries.

- *Undertaking of projects related to environmental pollution.*
- *Conducting of seminars and workshops*
- *Direct stack monitoring*
- *Follow up of consent administration*

It is noted that they are doing some activities which do not come under the purview of their envisaged functions. Those functions are mentioned below:

- *Maintenances of building*
- *Maintenances of vehicles*
- *File management(from initiating files to closing stage)*
- *Accounts verification*

It is clear from the above-mentioned description that, there are certain disparities among the co-ordination of works in Technical Wing of KSPCB. The major function of KSPCB is to protect the environment from all types of pollution. So it should have to undertake projects on environmental issues and also conduct seminars, workshops and awareness programmes to the public. Moreover, they are assigned with certain activities which do not need any special technical scrutinizing. It is assumed that these phenomena may be due to the overload of functions, lack of functional co-ordination among the administrative system.

3.8.2 SCIENTIFIC FUNCTIONS

1. River monitoring
2. Water quality monitoring
3. Air monitoring
4. Analysis of effluent samples
5. Analysis of legal/complaint samples
6. Pesticide analysis
7. Waste water analysis
8. Solid waste analysis
9. Heavy metal analysis
10. Undertaking National and State Projects (NWMP,SWMP,AWQM,NAMP and SAMP)
11. Undertake and participate in research projects related to environment
12. Approval of laboratories of companies and private agencies
13. Quality control check of laboratories
14. Maintenance of laboratory
15. Purchase of Equipments
16. Preparation of progress report

3.8.3 ADMINISTRATIVE FUNCTIONS

ADMINISTRATION OF THE OFFICE

Register Maintenance

- Inward Register
- Dispatch Register
- Distribution Register
- Register of deputation hands
- Stock register of stationery
- Stock register of furniture
- Local delivery register
- Casual Leave register
- Right to Information register (Separate)

Allied Administration Works

- Service book maintenance
- Communication with Employment Exchange
- Posting of attendees for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.
- Repair and maintenance of Office equipments.
- Maintenance and rent payment of Office building
- Drafting and fair copying of letters and other communications with various Offices and Head Office
- Staff meeting with Head of the Department

3.8.4 ACCOUNTS FUNCTIONS

ACCOUNTS OF THE OFFICE

Register Maintenance

- Cash Book
- Ledger
- Imprest Account & Petty Cash Book
- Salary register
- DD register
- Cheque register
- Aquittance register
- Stamp account register

Salary Bill Preparation

- Bill preparation and disbursement of salary
- TA bill preparation
- Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI
- Remitting deduction from deputation staff
- Remitting income tax
- Medical reimbursement
- DA arrear bill preparation
- Fixation of pay revision arrear
- Profession tax remittance
- Surrendering of Earn leave
- Pension Preparation and disbursement

Miscellaneous Accounts Works

- Preparation of vouchers
- Communication with AG Office
- Account verification of consent files
- Preparation of cheque for contingency expenditure and encashment
- Bills of contract vehicles
- Remitting DD to banks
- Letters forwarding to banks
- Consolidated receipt and payment report preparation

3.9 STAKEHOLDERS OF KSPCB

As per Environmental norms and regulations the stakeholders of KSPCB include all kinds of *industries (including high-rise buildings/residential buildings), Hospitals & health care institutions, Hotels etc.* The classification of industries is as follows:

Three types of Consents are issued to these stakeholders by the KSPCB. They are,

- **ICO** (Integrated Consent to Operate)
- **ICE** (Integrated Consent to Establish)
- **ICR** (Integrated Consent for Renewal)

The delegation of power of the Officials to issue these Consents as per government norms is given below:

	DO/DSC	RO	MS	Chairman
Water & Air Acts				
Green	All-Head of DO			
Orange (including high rise buildings/ residential buildings)	≤ 10 Crore	>10 to ≤ 50 Crore	>50 Crore	
Red	≤ 1 Crore	>1 to ≤ 10 Crore	>10 to ≤ 50 Crore	>50 Crore
Hospital/Health Care Institution	< 50 Beds	50 to < 200 Beds	200 to < 500 Beds	≥ 500 Beds
Hotels	≤ 1 Crore	>1 to ≤ 5 Crore	>5 to ≤ 15 Crore	> 15 Crore
Water & Air Act, Authorization				
Local Bodies	Below C class Municipality	C Class Municipality	B Class Municipality	A class Municipality & Corporation

CHAPTER- IV
WORK METHOD & WORK
MEASUREMENT

4.0 INRODUCTION

The term Work Study is defined in British Standard as, a management service based on techniques particularly Method Study and Work Measurement, which are used in the examination of human work in all its context, and which lead to the systematic investigation of all the resources and factors which affect the efficiency and economy of the situation being reviewed to effect improvement⁷.

Method Study is the systematic recording and critical examination of existing and proposed ways of doing work, as a means of developing and applying easier and more effective methods and reducing costs.

Work Measurement is the application of technique designed to establish the time for a qualified worker to carry out a specific job at a defined level of performance⁸.

This chapter presents analysis and interpretation of the work method and work measurement of each category of officers and operational staffs of the Board. In order to conduct the work study, category wise proforma were prepared and collected data regarding detailed functions of various functionaries. The statistical analysis of work measurement is also done for calculating the required man power for KSPCB.

The work measurement sheets were used only for operational level staffs (AE, AS and below). Tables regarding work measurement contain frequency, periodicity, and unit time of activities of each functionary.

Total work content of each operational staff in Technical, Administrative and Accounts Wings were measured separately by adding **11%** of constant allowance with the sub total man hours in a month. However in scientific wing **13%** is the constant allowance added with the subtotal.

In order to arrive at the number of persons required, the total work content is divided by the standard working hours (**136 hours, calculated in advance**). Additional requirement of staffs in each office was determined on the basis of present strength and the workload of the office. The method used to arrive at standard working hour is given below.

⁷ Currie, R M. *Work study*, London: Pitman Paper Bags, 1972. P. 18

⁸ Introduction to Work Study, International Labor Office, Geneva, Universal Book corporation, Bombay, 1983

CALCULATION OF TIME AVAILABLE PER MONTH & LEAVE RESERVE

Total days	365
Holidays	
Sundays	52
2 nd Saturdays	12
National/Festival	17
	<hr/>
Total	81
Net working days Available	365-81 = 284 days

Eligible leave

Casual leave	20 (100% of maximum eligible days)
Part of Earned leave	3 (10% of maximum eligible days)
Half pay	2 (10% of maximum eligible days)
Total leave	<hr/> 25 days
Net number of working days available per person in an year	284 - 25 = 259 days
% of Leave Reserve	= $25 \times 100 / 284 = 8.8 \%$ = Say 9%

Available time per day	= 7 hrs
	= 7 x 60 minutes
	= 420 minutes
Lunch break	= 0.75 hrs
Net available time per day	= 420-45 minutes
	= 375 Minutes
	= 6.25 hours
Total number of working hours available per person in a month excluding leave reserve	= 286/12 x 6.25 = 149 hours
Leave reserve @ 9%	= 149 x 9/100 = 13.41 = Say, 13 hours
Therefore net working time available per person per month including leave reserve @ 9%	= 149 - 13 136 hours

Part-A of this chapter explains the work method of supervisory staff in KSPCB whereas Part-B describes the analysis of work method and measurement of operational level staffs in KSPCB.

PART-A

This deals with the analysis of functions of Chief Environmental Engineer (CEE), Senior Environmental Engineer (SEE), Environmental Engineer (EE) and Assistant Environmental Engineer (AEE) of Technical Wing and Chief Environmental Scientist (CES), Senior Environmental Scientist (SES), Environmental Scientist (ES) and Assistant Environmental Scientist (AES) of Scientific Wing and also Senior Officers of Administrative Wing. It involves the major functions, its pattern of activities and related issues. Functions of Technical Wing are classified into three divisions, viz. Administrative activities, Monitoring of functions and Non-file works. The functions of Scientific Wing are classified into file works, non-file works and Monitoring of functions. The work method of Ministerial Wing was done with the assessment of job pattern of administrative and accounting duties and responsibilities.

4.1 WORK MEASUREMENT OF OFFICERS

4.1.1 TECHNICAL WING

CHIEF ENVIRONMENTAL ENGINEER

SL NO	Functions		
	Administrative activities	Non-file works	Monitoring
1	In charge of control and general co-ordination of Head Office and Regional Offices	Meetings with Chairman and Member Secretary	Monitoring of all works done by subordinates
2	In charge of control and general co-ordination of District Offices	Discussion with subordinates	Periodic inspection of industries, hospitals, hotels, Municipal Solid Waste sites etc.
3	Processing of Verification reports consent/authorization	Interaction with NGOs, consultants and other officers	Municipal waste management of 14 districts
4	Issuing of Consent / authorization as per delegation of powers	Interaction with applicants and general public	Audit and Accounts verification
5	Filing of counter affidavits in cases related with KSPCB	Attending Public Hearings	Scrutiny of Effluent/Emission monitoring reports

6	CESS Assessment	Public awareness programmes	
7	Transparency report	Attending of meetings with Legislative Committee, Secretariat, Planning Board, CPCB and MoEF	
8	Co-ordination of all matters connected with Legislative Assembly /Lok Sabha / Legislative Committee / State Government /CPCB / MoEF	Attending of Seminars and Workshops	
9	Verification of Consent register	Review meetings outside Head Quarters	
10	Verification of advocates bill	Appearing before courts / Human Rights Commission / Ombudsman / Lokayuktha and appellate authority	
11	Matters related to website and computerization		
12	Purchase of land, building and vehicles		
13	Preparation and review of plan scheme/ projects		
14	Compilation of annual returns under various rules and preparation/ modification of inventories		
15	Preparation of Annual Report		
16	Providing data / discussion to audit party and verification of reports		
17	State Pollution Control Award		
18	Works related to Board Meeting		
19	Preparation of guidelines / norms / circulars / standards etc.		
20	Activities related to Public Information		

21	Implementation of Environmental and Pollution Control Acts and Rules		
22	Work related to World Environmental Day		

SENIOR ENVIRONMENTAL ENGINEER

Functions			
SL NO	Administrative activities	Non-file works	Monitoring
1	In charge of control and general co-ordination of Head Office, Regional Offices	Meetings with Chairman and Member Secretary	Monitoring of all works done by subordinates
2	In charge of control and general co-ordination of District Offices	Discussion with subordinates	Assisting Supervisor
3	Processing of Verification reports consent/authorization	Interaction with NGOs, consultants and other officers	Monitoring the works of regional laboratory, Kozhikode
4	Issuing of Consent / authorization as per delegation of powers	Interaction with applicants and general public	Audit and public Accounts committee
5	Filing of counter affidavits in cases related with KSPCB	Attending of Public Hearings	Periodical inspection of industries, hospitals, hotels, Municipal Solid Waste sites etc.
6	CESS Assessment	Public awareness programmes	
7	Transparency report	Attending of Seminars and Workshops	
8	Co-ordination of all matters connected with Legislative Assembly /Lok Sabha / Legislative Committee / State Government /CPCB / MoEF	Review meetings outside Head Quarters	
9	Verification of Consent register	Tapal Scrutiny and marking	

10	Work related to World Environmental Day	Review meetings- HO review, RO review, DO review and Section review	
11	Implementation of Environmental and pollution control Acts and Rules	Appearing before courts / Human Rights Commission / Ombudsman / Lokayuktha and appellate authority	
12	Purchase of land, building and vehicles		
13	Preparation and review of plan scheme/ projects		
14	Activities related to Public Information		
15	Preparation of Annual Report		
16	Providing data / discussion to audit party and verification of reports		
17	State Pollution Control Award		
18	Works related to Board Meeting		
19	Preparation of guidelines / norms / circulars / standard etc.		
20	Purchase and maintenance of equipments, stationery, vehicles and furniture		
21	Replies to Right To Information enquiries		
22	Legal generals, tribunals and commissions		
23	Works related to Sutharya Keralam		
24	Rules general works		

ENVIRONMENTAL ENGINEER

Functions			
SL NO	Administrative activities	Non-file works	Monitoring
1	In charge of control and general co-ordination of District Offices	Meetings with Chairman and Member Secretary	Monitoring of all works done by subordinates
2	Processing of Verification reports consent/authorization	Discussion with subordinates	Assisting Supervisor
3	Issuing of Consent / authorization as per delegation of powers	Interaction with NGOs, consultants and other officers	Audit and Accounts verification
4	Filing of counter affidavits in cases related with KSPCB	Interaction with applicants and general public	Scrutiny of Effluent/Emission monitoring reports
5	Transparency report	Attending of Public Hearings	Periodical inspection of industries, hospitals, hotels, Municipal Solid Waste sites etc.
6	Co-ordination of all matters connected with Legislative Assembly /Lok Sabha / Legislative Committee / State Government /CPCB / MoEF	Public awareness programmes	Audit and public Accounts committee
7	Verification of Consent register	Attending of Seminars and Workshops	Joint inspection with other departments
8	Purchase of land, building and vehicles	Tapal Scrutiny and marking	
9	Preparation and review of plan scheme/ projects	Review meetings- HO review, RO review, DO review and Section review	
10	Preparation of Annual Report	Appearing before courts / Human Rights Commission / Ombudsman / Lokayuktha and appellate authority	
11	Providing data / discussion to audit party and verification of reports	Board meeting	

Prosecution under Water Act/Air Act

12	State Pollution Control Award	Attending District level meetings	
13	Works related to Board Meeting	Advice local self governments	
14	Preparation of guidelines / norms / circulars / standard etc.		
15	Purchase and maintenance of equipments, stationery, vehicles and furniture		
16	Replies to Right To Information enquiries		
17	Generals Legal, tribunals and commissions		
18	Works related to Sutharya Keralam		
19	Rules general works		
20	Maintenance of all office and laboratories		
21	Environmental data management		
22	Additional grant preparation		
23	Supervision of library and record room		
24	Verification of all registers		
25	Complaint and court cases of industries		
26	Activities related to Public Information		
27	Enquiry on complaints		
28	Implementation of Environmental and pollution control Acts and Rules		
29	In charge of District laboratory		
30	Work related to World Environmental Day		

ASSISTANT ENVIRONMENTAL ENGINEER

Functions			
SL NO	Administrative activities	Non-file works	Monitoring
1	Processing of Verification reports consent/authorization	Meetings with Chairman and Member Secretary	Monitoring of all works done by subordinates
2	Filing of counter affidavits in cases related with KSPCB	Discussion with subordinates	Assisting Supervisor
3	CESS Assessment	Interaction with NGOs, consultants and other officers	Periodical inspection of industries, hospitals, hotels, MSW sites etc.
4	Transparency report	Interaction with applicants and general public	Audit and public Accounts committee
5	Co-ordination of all matters connected with Legislative Assembly /Lok Sabha / Legislative Committee / State Government /CPCB / MoEF	Attending of Public Hearings	Joint inspection with other departments
6	Verification of Consent register	Attending of Seminars and Workshops	
7	Verification of advocates bill	Review meetings- HO review, RO review, DO review and Section review	
8	Matters related with website and computerization	Appearing before courts / Human Rights Commission / Ombudsman / Lokayuktha and appellate authority	
9	Purchase of land, building and vehicles	Board Committee meeting	
10	Preparation and review of plan scheme/ projects		
11	Preparation of Annual Report		
12	State Pollution Control Award		
13	Works related to Board Meeting		

14	Preparation of guidelines / norms / circulars / standard etc.		
15	Purchase and maintenance of equipments, stationery, vehicles and furniture		
16	Right To Information replies		
17	Generals Legal's, tribunals and commissions		
18	Works related to Sutharya Keralam		
19	Rules general works		
20	Maintenance of all office and laboratories		
21	Verification of all registers		
22	Complaint and court cases of industries		
23	Activities related to Public Information		
24	Registration under hazardous waste rule		
25	Enquiry on complaints		
26	Implementation of Environmental and Pollution Control Acts and Rules		
27	Work related to World Environmental Day		
28	Liaising work with the standing counsels of KSPCB		

In the Technical Wing of KSPCB, it is noted that, officers such as Chief Environmental Engineer, Senior Environmental Engineer, Environmental Engineer and Assistant Environmental Engineer together perform 61 activities out of which 37 are administrative in nature, 9 are related to monitoring and 15 are non-file activities.

Chief Environmental Engineer (CEE) is directly involved in thirty-six activities out of which 22 are administrative in nature, 5 pertaining to monitoring and 10 non-file activities. Since, all files come to the CEE only after scrutiny by other Officers; the CEE has to spend comparatively less time.

Senior Environmental Engineers (SEE) carry out forty major functions in which twenty-two are administrative, five are monitoring and eleven are non-file functions. Out of these functions, SEE is the decision maker for ten activities. While comparing activities of CEE, SEE takes more time for verification of files due to lack of adequate professionalism in file management.

Environmental Engineers (EE) perform fifty activities, which are mainly supervisory in nature. Out of these, majority (30) is related to administration, 7 are monitoring and 13 are non-file functions. Even though in District Offices, EE is the decision-making authority, it is seen that in Head Office and Regional Offices the files are routed to SEE or CEE. It is noted that the EE spends more time than other superior officers which again is due to lack of professional file management.

Assistant Environmental Engineer (AEE) comes under the direct supervision of Environmental Engineer, but in some cases, the AEE is supervised directly by SEE or CEE. On measuring the work of AEE, it is seen that this category of officers perform forty one major activities out of which twenty-eight are administrative, five are monitoring and nine are non-file works. In addition to this in, the AEE's perform operational activities as an Assistant Engineer in the two district offices of Ernakulam.

Ideally in a hierarchy of officers the top most ones has to spend more time on conceptual and monitoring activities. But here, it is seen that professional who are to apply their expertise in pollution control are presently tied up with routine administrative matters which can be easily done by a person in the lower category.

4.1.2 SCIENTIFIC WING

CHIEF ENVIRONMENTAL SCIENTIST

Classification of officers Work			
Sl No	File work	Non-file Work	Monitoring
1	Control and supervision of all laboratories functioning under KSPCB	Attending conference, seminar, workshop etc.	Monitoring of all works done by subordinates
2	Responsibility of projects such as * NWMP, NAAMP, SWMP, SAAMP	Implementing public awareness programmes	
3	Issuing certificate of approval to various laboratories who applies for the approval of KSPCB		
4	Responsibility of maintenance of all instruments and equipments in laboratories		
5	Procurement of required instruments, chemicals, equipments and glassware for all laboratories of KSPCB		
6	Annual Water and Air Quality directory, annual report and monthly progress report		

- * NWMP – National Water Monitoring programme
- NAMP – National Ambient Air Monitoring Programme
- SWMP – State Water Monitoring Programme
- SAMP – State Ambient Air Monitoring Programme

SENIOR ENVIRONMENTAL SCIENTIST

Classification of officers Work			
Sl No	File work	Non-file Work	Monitoring
1	Responsibility of projects such as NWMP, NAMP, SWMP, SAMP	Inspection of laboratories for recognition.	Overall supervision of Central lab
2	Responsibility of maintenance of all instruments and equipments in laboratories	Attending conference, seminar, workshop etc.	Analyze / Cause to analyze samples
3	Annual Water and Air Quality directory, annual report and monthly progress report	Field survey and sampling	Supervision of all Accounts/ Administration works of Central Lab
4	AMC registration and renewal of major instruments	Implementing public awareness programmes	Verification of all files records and registers of central lab
5	Purchase and maintenance of equipments, instruments, glassware's and chemicals		Monitoring of all works done by subordinates
6	RC agreement registration and renewal of purchase		
7	Verification of analytical data received from central and other labs		
8	NABL accreditation work of central lab		
9	Internal AQC work, inter-laboratory proficiency test		
10	Induction training to newly recruited staffs		
11	Assisting Supervisor		

ENVIRONMENTAL SCIENTIST

Classification of officers Work			
Sl No	File work	Non file Work	Monitoring
1	Annual Water and Air Quality directory, annual report and monthly progress report	Inspection of laboratories for recognition.	Analyze / Cause to analyze samples
2	AMC registration and renewal of major instruments	Field survey and sampling	Monitoring of all works done by subordinates
3	Purchase and maintenance of equipments, instruments, glassware's and chemicals	Implementing public awareness programmes	
4	RC agreement registration and renewal of purchase		
5	Verification of analytical data received from central and other labs		
6	NABL accreditation work of central lab		
7	Internal AQC work, inter-laboratory proficiency test		
8	Induction training to newly recruited staffs		
9	Assisting Supervisor		
10	Online EDB entry and sending of hard copies to CPCB		
11	Preparation of bills for sampling and analysis		
12	Bio-monitoring and toxicity testing		
13	Operation and maintenance of instruments		
14	Maintenance of stock register of chemicals, glassware and instruments etc.		
15	Vehicle maintenance of central lab		

16	Preparation of reports about unserviceable instruments, equipments, furniture and auction of the same		
17	Annual stock verification		
18	Generation and reporting of analytical results of central lab		
19	General administration of Regional lab, Kozhikode		
20	In-charge of various projects undertaken to Regional Laboratory and preparation of its reports		

ASSISTANT ENVIRONMENTAL SCIENTIST

Classification of officers Work			
Sl No	File work	Non-file Work	Monitoring
1	Annual Water and Air Quality directory, annual report and monthly progress report	Field survey and sampling	Analyze / Cause to analyze samples
2	Purchase and maintenance of equipments, instruments, glassware's and chemicals	Implementing public awareness programmes	Monitoring of all works done by subordinates
3	Internal AQC work, inter-laboratory proficiency test		
4	Assisting Supervisor		
5	Online EDB entry and sending of hard copies to CPCB		
6	Operation and maintenance of instruments		
7	Maintenance of stock register of chemicals glassware and instruments etc.		
8	Annual stock verification		

9	Handling the files related to repairing instruments and equipments of central lab and other district labs		
10	Purchase of books and journals for lab		
11	Maintaining library of central lab		
12	Purchase of stationery items		
13	Entering data into the analysis register		
14	Forwarding samples to central lab		
15	Local purchase of chemicals and laboratory wares		
16	Preparation of sampling schedules		

The hierarchy of Scientific Wing in KSPCB consists of Chief Environmental Scientist (CES), Senior Environmental Scientist (SES), Environmental Scientist (ES) and Assistant Environmental Scientist (AES). There are forty-three major duties and responsibilities assigned to these Officers. Among the 43 activities, only three activities need wholesome participation and co-ordination of the entire team.

There is only one post of CES in the board that is at present posted in Central Laboratory of KSPCB Ernakulam. CES is the head of the Scientific Wing and all other subordinate staffs comes under CES. CES performs nine activities, out of which, six are purely administrative in nature. Among this, two activities are exclusively carried out by CES, without the support of subordinate staffs. These activities include supervision of all laboratories functioning under KSPCB and issuing certificates of approval to various laboratories who applies for the approval of KSPCB. The remaining three activities have the involvement of the subordinates. There are two non-file activities, which include attending conferences, seminars, workshops, etc and implementing public awareness programs. CES monitors all the work of subordinates.

SES comes next to CES and supervises ES and AES. SES performs 20 activities out of these 11 activities are administrative, 4 are non-file work and 5 pertain to monitoring.

There are three ES in the office, two posts at Central Laboratory and one post at Regional Office Kozhikode. ES is the immediate subordinate to SES and supervisor to AES in the Scientific Wing. Out of the 25 activities performed by the ES, 20 are administrative, 3 are non-file work and 2 are related to monitoring. Compared to CES and SES, ES is seen to perform more administrative activities

AES is the post that comes last in the hierarchy of officers in the Scientific Wing. Out of the total 20 activities performed by the AES, 16 are administrative, 2 are non-file work and 2 are monitoring activities.

4.1.3 ADMINISTRATIVE AND ACCOUNTS WING OFFICERS WORK

MEASUREMENT

The Administrative and Accounts Wing of KSPCB comprises of Administrative Officer (AO), Account Officer (ACO), Assistant Administrative Officer (AAO), Assistant Accounts Officer (AACO) and Senior Superintendent (SS). AO is the head of Administrative wing and is responsible for all the works dealing with establishment. AAO performs functions which support the activities of AO in Accounts Wing; the supervisory head is Accounts Officer (ACO), who is responsible for all the work dealing with accounts. The AACO comes under the supervision of ACO. SS obtains supervision from AO, AAO, ACO and AACO.

PART-B

Part B deals with the job description and work measurement of Assistant Engineer (AE)/ Graduate Engineering Apprentices (GEA), Assistant Scientist (AS), Senior Scientific Assistant (SSA), Junior Scientific Assistant (JSA)/ Post Graduate Scientific Apprentices (PGSA), Assistant and Typist. Job description of each category explains the nature of functions, which they are presently performing. While calculating the man power requirement through work measurement and work method it is found that some of the activates can be redeployed to other functionaries, for example, some activities of Assistant Engineer can be redeployed to Assistant and Typist.

4.1 WORK MEASUREMENT OF ASSISTANT ENGINEER (AE)/ GRADUATE ENGINEERING APPRENTICE (GEA)

4.1.1 JOB DESCRIPTION CHART

Assistant Engineer, who is the cutting edge level functionary in the board, is involved in 23 activities which are listed below.

1. Consent administration
2. Inspection in field
3. Inspection in industries
4. Putting up inward in files concerned
5. Entering report in to computer
6. Consent or notice drafting
7. Fair copy preparation
8. Drafting consent for Taluk concerned
9. Entering Verification Reports in to the computer
10. Register maintenance
11. Put up draft Verification Reports to superior Officers
12. Initiating files
13. Work related to RTI Act

-
14. General technical correspondence and list preparation
 15. General correspondence to CPCB
 16. Circular keeping
 17. Maintenance of equipments and Bill in Office
 18. Consolidation of list prepared by GEA
 19. Maintenance of Office vehicle
 20. Legal matters (HR,OMBUD,PETITION)
 21. Organizing Seminars, workshops and awareness camps
 22. Joint inspection with other institutions
 23. Complaint redresses related activities

4.1.2 MAN POWER REQUIREMENT FOR THE CADRE OF ASSISTANT ENGINEERS

Offices	Total work content (Hrs)	Excess work load (+)(Hrs)	Deficit Work Load(-)(Hrs)	Current man power	Man power requirement	Additional manpower required	Work content After re-deployment	Free man hours
Head Office	1434.46		61.54	11	10.54	0	1121.96	312.5
Regional Office Thiruvananthapuram	530.73	122.73	--	3	3.90	1	426.10	104.63
ESC Ealoor	544.32	136.32	--	3	4.00	1	544.32	0
Regional Office Ernakulam	346.32	74.32	--	2	2.54	1	268.62	77.70
Regional Office Kozhikode	579.32	35.32	--	4	4.25	0	411.71	167.61
District Office-Thiruvananthapuram	697.60	--	118.4	6	5.13	-1	590.88	106.72
District Office-Kollam	578.48	170.48	--	3	4.14	1	491.69	86.79
District Office-Pathanamthitta	581.01	173.01	--	3	4.27	1	418.47	162.54
District Office-Alappuzha	613.33	69.33	--	4	4.50	1	548.21	65.12
District Office-Kottayam	749.60	69.60	--	5	5.51	1	566.90	182.70
District Office-Idukki	497.85	89.85	--	3	3.66	1	354.90	142.95
District Office-1 Ernakulam	513.56	105.56	--	3	3.77	1	432.99	80.56
District Office-2 Ernakulam	499.53	91	--	3	3.66	1	288.62	210.91
District Office-Thrissur	661.82	117	--	4	4.86	1	475.66	186.62
District Office-Palakkad	665.85	121.85	--	4	4.90	1	455.48	210.37
District Office-Malappuram	621.69	77.69	--	4	4.57	1	434.35	187.34
District Office-Kozhikode	580.59	36	--	4	4.27	0	484.71	95.88
District Office-Wayanad	523.18	115.18	--	3	4.46	1	332.26	190.92
District Office-Kannur	425.62	153.62	--	2	3.13	1	322.92	102.70
District Office-Kasaragod	565.88	157.88	--	3	4.16	1	469.25	96.63
Total	11666.42	1780.42	179.94	78	86.22	16	8895.68	2771.19

The Board currently has appointed 84 (26 AE & 58 GEA's) personnel in the rank of AE/GEA against 90 (32 AE & 58 GEA's) sanctioned posts, who are currently involved in 23 activities of the Board. Measurement of the work load of 78 personnel of these categories shows that there is additional requirement of 16 more staff in this category making it 100 (84+16). This is calculated based on the logic that the standard working hours that can be put in by one person is 136 in a month. While Head Office, Thiruvananthapuram, Regional Office Kozhikode and District Offices Thiruvananthapuram & Kozhikode have adequate number of staff, all the other offices need an additional manpower in this category. The study reveals that out of 20 offices in the state, the work load of this category is heavy in 16 offices.

Thus by adding 16 more staff to this category and by reassigning certain routine work to lower category, the Board can make its functions much more effective and efficient as this category is at the cutting edge level performing many critical functions. Currently due to shortage of staff, some of the functions like R&D, stack monitoring, developmental projects, annual report etc are not given necessary attention. This can be corrected by this two pronged strategy. In order to ensure quality of outputs of the work reassigned to lower category, formats may have to be developed wherever possible so that even staff with lesser technical know-how can effectively perform the activities.

Considering the magnitude and importance of the work of the Assistant Engineers, it is suggested to strengthen this category. As the work measurement results in the requirement of 100 Assistant Engineers in the Board, steps may have to be taken to add 68 more to the sanctioned number of 32. Instead of strengthening the number of Assistant Engineers to 100, additional post of Junior Engineer (JE) may be created in the proportion of 1:1

TABLE NO 4.1.3 ADDITIONAL REQUIREMENT OF AE AND JE

Total additional Requirement	AE	JE
100	18	50

The rationale for suggesting Junior Engineer (JE) is, at present in the scientific wing there are JSA to support Assistant Scientist who is a same rank functionary to AE in the Technical

Wing. For the effective delivery of services at field level there is a need for Junior Engineers (JE) for assisting the Assistant Engineers in certain important technical functions such as sample selection, measurement, stack monitoring etc. It is suggested that the qualification of Junior Engineer (JE) for recruitment may be fixed as Diploma in relevant disciplines. As per the recruitment of Junior Engineers, KSPCB may formulate adequate Promotion policies with the amendment to the special rules.

Figure No: 4.1 **Existing Structure & Strength**

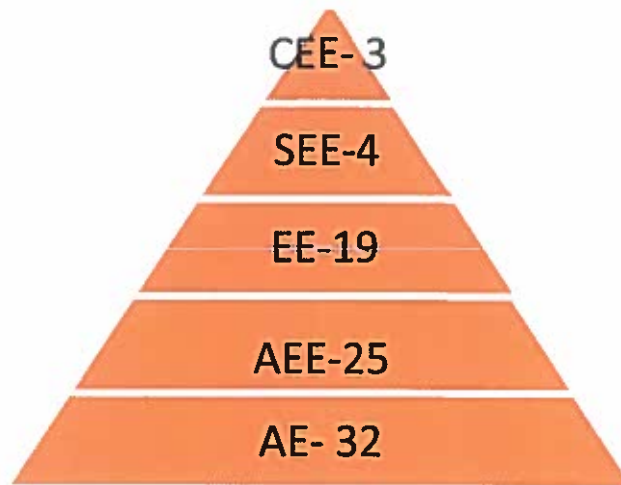
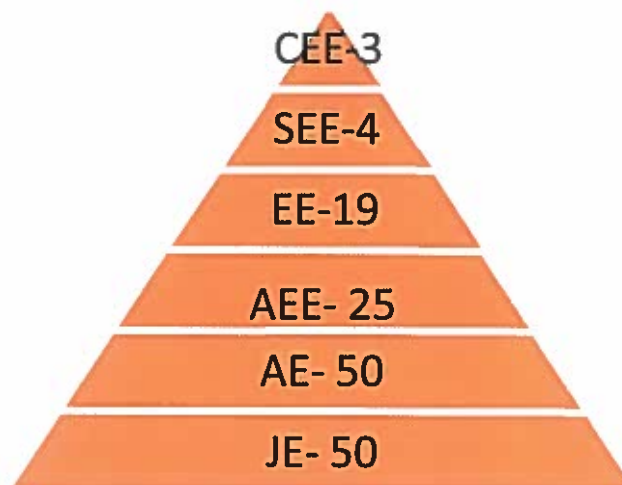


Figure No: 4.2 **Proposed Structure & Strength**



The work measurement of AE in KSPCB depicted in chapter four, part one, present free man hours generated after the redeployment of Assistant Engineers' clerical works to the typist and assistants. In most of the offices a clear and distinct work order is given. However, due to constraint of time and work force some of the major duties are skipped or not performed in the

proposed manner. Free man hours of AE may be used to execute the following functions which are unnoticed or not performed at the optimum level.

- Maintenance of personal registers
- Up to date record keeping
- Emission monitoring
- Under taking developmental projects of board
- Annual report preparation of board
- Proper consent enquiry (it means at present consent to establish is given to the green category of industries even without inspection in the field)
- Stack monitoring
- Promote research and development wing in the board
- Proper supervision and monitoring of subordinates
- Regular and random inspections
- Implementation of bio-medical rules in all hospitals

4.2 WORK MEASUREMENT OF ASSISTANT SCIENTIST (AS)

There are altogether 10 Assistant Scientists in the Board who are attached to the Laboratories in the District Offices and mainly looks after the laboratory testing of samples. Apart from this, they also prepare draft project reports of plan schemes, maintenance of computer, organize training programmes, correspondence with other offices of the Board and even look after vehicle maintenance. The jobs performed by functionaries of this category are listed below.

4.2.1 JOB DESCRIPTION CHART

1. SWMP Sampling
2. NWMP sampling
3. Forwarding samples to CL for Pesticide analysis
4. Supervision of instrument Calibration
5. Supervision of analysis work
6. Supervision of Duplicate analysis

7. Supervision of PGSA and JSA
8. Supervision of NS operator
9. Supervision of Ambient Water analysis
10. Supervision of Waste water analysis
11. Field data verification of air sampling
12. NAMP, EDB Data checking
13. Ionic balance check
14. NABL Accreditation works
15. Preparing of draft project reports (plan scheme projects)
16. Preparing analysis reports of well water collected from schools under the AWM Projects and drafting letters to the concerned schools
17. Report checking (monthly, Yearly)
18. Record Verification
19. Verifying and forwarding data of NWMP, SWMP and AWQM projects to CL
20. Power point presentation of SMNP data
21. Sabarimala Duty
22. Computer Maintenance
23. Organize training programme
24. Stock verification of Chemicals
25. Correspondence work with HO, DO, CL
26. Vehicle maintenances

Though this is a very important category as far as testing and analysis of samples are considered, 4 District Offices viz. Thiruvananthapuram, Kottayam, Palakkad and Kannur currently do not have this category. Instead in Thiruvananthapuram and Kannur District Laboratories Assistant Environmental Scientist looks after these activities.

4.2.2 MAN POWER REQUIREMENT FOR THE CADRE ASSISTANT SCIENTIST(AS)

Office	Total Work Content (hours)	Excess Workload (+) (hours)	Deficit workload (-) (hours)	Measured man power	Manpower Requirement (Total work content / Standard working hours)	Additional requirement
Central Lab, Ernakulam	220.21	84.21	-	1	1.62	1
Regional lab Kozhikode	228.05	92.05	-	1	1.68	1
District Lab, Kollam	83.12	-	52.88	1	0.61	0
District Lab, Alappuzha	111.80	-	24.2	1	0.82	0
District Lab, Pathanamthitta	119.95	-	16.05	1	0.88	0
District Lab, Idukki	75.49	-	60.51	1	0.56	0
District Lab, Thrissur	75.49	-	60.51	1	0.56	0
District Lab, Malappuram	108.48	-	27.52	1	0.8	0
District Lab, Wayanad	86.25	-	49.75	1	0.63	0
District Lab, Kasaragod	112.44	-	23.56	1	0.83	0
Total	1221.28	176.26	314.98	10	8.99	2

A common trend derived through the measurement, 'AS in eight out of ten offices are underutilized'. But the importance of this category cannot be undermined as they are the key decision support functionary positioned between decision makers at the top level and laboratory

technicians at operational level. It was also observed that the functions performed by this category across the different offices are not uniform. Also, certain functions like developmental projects and Research & Development are not given much attention now. *The measurement shows that, 6 additional posts of AS is needed for the effective functioning of Scientific Wing of KSPCB.* Hence the role of this category can be toned up by positioning them appropriately in all the offices and utilizing their time productively in developmental activities of the board which increases its social relevance.

In Thiruvananthapuram and Kannur District Laboratories in place of AS an AES is appointed. In these offices instead of AES an AS is to be appointed and the present AES need to be reappointed to Central Laboratory.

4.3 WORK MEASUREMENT OF SENIOR SCIENTIFIC ASSISTANT (SSA)

4.3.1 JOB DESCRIPTION CHART

1. Collection of Samples
2. Supervision of Reagent and absorption media preparation
3. Purchase of glassware's and chemicals
4. Preparation of progress report and performance report
5. Correspondence related to laboratory
6. Preparation of annual report
7. Supervision of Erumeli Sample Analysis
8. Preparation of reports to legislative Assembly Questions
9. Supervision of calibration of instruments

4.3.2 MAN POWER REQUIREMENT FOR THE CADRE SENIOR SCIENTIFIC ASSISTANT SCIENTIST (SSA)

Office	Total Work Content (hours)	Excess Workload (+) (hours)	Deficit workload (-) (hours)	Measured man power	Manpower Requirement (Total work content / Standard working hours)	Additional requirement
District Lab, Kottayam	82.06	-	53.94	1	0.6	0
Total	82.06	-	53.94	1	0.6	0

4.3.3 OVER ALL REQUIREMENT OF SSA

OFFICES	PRESENT STRENGTH	VACANT POSITIONS
Central Lab	0	4
RO Kozhikode	0	1
ESC Eloor	0	1
DO Thiruvananthapuram	0	1
DO Kollam	0	1
DO Alappuzha	0	1
DO Pathanamthitta	0	1
DO Kottayam	1	0
DO Idukki	0	0
DO Thrissur	0	1
DO Palakkad	0	1
DO Malappuram	0	1
DO Wayanad	0	0
DO Kannur	0	1
DO Kasaragod	0	0
Total	1	14

The study reveals that only one out of 15 posts of Senior Scientific Assistant is currently filled. *Considering the magnitude and importance of the work of the Senior Scientific Assistant, it is suggested to strengthen this category.* As the positional requirement results in the requirement of 15 SSAs in the Board, steps may have to be taken to fill the sanctioned number of 15.

4.4 WORK MEASUREMENT OF JUNIOR SCIENTIFIC ASSISTANT AND POST GRADUATE SCIENTIFIC APPRENTICES

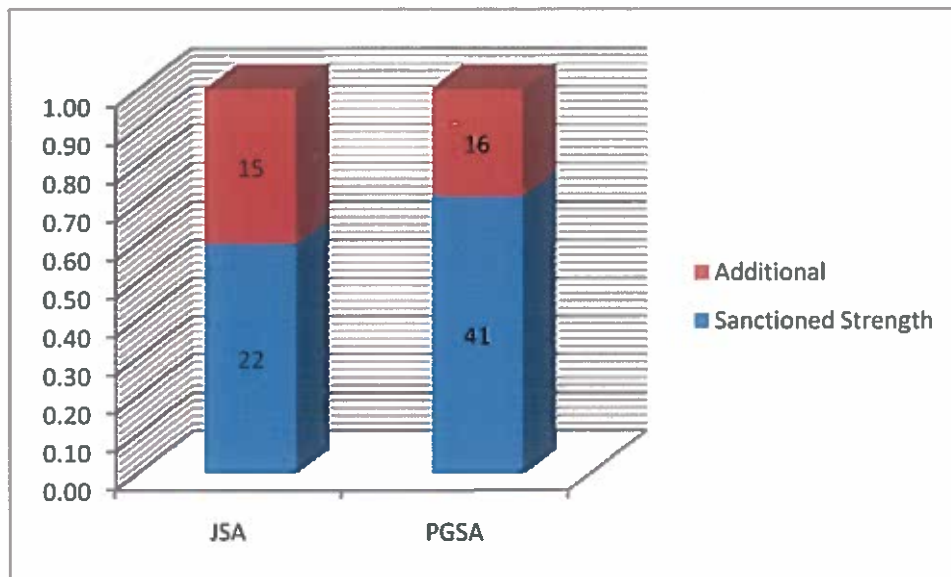
4.4.1 JOB DESCRIPTION CHART

I	GENERAL FUNCTIONS
a	Receiving and coding of Sample
b	Reagent preparation
c	Calibration of Instruments
d	Standardization
e	Graph preparation
f	Calculations
g	Record Maintenance
h	online EDB entry
i	Monthly Progress report
j	Participation in Quality Control
k	Display of Results of Air Analysis
l	annual report preparation
m	duplication analysis
n	Attending training programme
II	GENERAL ANALYSIS
a	National Water Monitoring Programme
b	State Water Monitoring Programme
c	Ambient Water Quality Monitoring
d	Effluent/ complaint Analysis
e	Air Monitoring
f	Stack Monitoring
g	Heavy Metal Analysis
h	Pesticide Analysis
i	River Water Analysis
j	Mud/ Solid Waste Analysis
k	Check the temperature
l	Waste Water Analysis
III	ANALYSIS – SPECIAL PROJECTS OF DISTRICTS

4.4.2 MAN POWER REQUIREMENT FOR THE CADRE JSA AND PGSA

Office	Total Work Content (hours)	Excess Workload (+) (hours)	Deficit workload (-) (hours)	Measured manpower	Manpower Requirement (Total work content / Standard working hours)	Additional requirement
Central Lab, Ernakulam	2867.08	691.08	-	16	21.08	5
Regional Lab, Kozhikode	991.08	39.08	-	7	7.29	0
Environmental Surveillance Centre, Eloor	925.99	109.99	-	6	6.81	1
District Lab, Thiruvananthapuram	915.57	235.57	-	5	6.73	2
District Lab, Kollam	415.84	7.44	-	4	4.05	0
District Lab, Pathanamthitta	561.04	153.04	-	3	4.13	1
District Lab, Alappuzha	840.46	296.46	-	4	6.18	2
District Lab, Kottayam	709.1	165.1	-	4	5.21	1
District Lab, Idukki	624.48	80.48	-	4	4.59	1
District Lab, Thrissur	528.49	120.49	-	3	3.89	1
District Lab, Palakkad	698.89	154.89	-	4	5.14	1
District Lab, Malappuram	649.46	105.46	-	4	4.78	1
District Lab, Wayanad	666.34	258.34	-	3	4.9	1
District Lab, Kannur	588.61	44.61	-	4	4.33	1
District Lab, Kasaragod	661.07	117.07	-	4	4.86	1
TOTAL	12643.5	2579.1		75	93.97	19

Figure No: 4.3 PGSA / JSA STRENGTH



From the above table it is clear that the existing number of Junior Scientific Assistants and Post Graduate Scientific Assistants are 75. The additional requirement which stands more than .33 is counted as one. Accordingly the work load assessment shows that there is additional requirement of 19 JSAs and PGSAs for the smooth services to the public. The manpower requirement regarding District wise analysis shows that while Kollam and Kozhikode have adequate number of JSAs and PGSAs, the Central Lab Ernakulam requires 5 number of JSA/PGSA. From the analysis, it is clear that the central lab is most heavily work loaded unit of KSPCB.

As against sanctioned strength of 22, the present strength 34 (including temporary staff) seems to be inadequate and pendency in sample testing is noted. As per the study, 19 additional Junior Scientific Assistants and Post Graduate Scientific Apprentice in the proportion of 1:1 would lead to reduction in the pendency. Instead of strengthening the number of JSA from 22 to 53, the additional requirement of 31 posts needs to be sanctioned in the ratio of 1:1

TABLE NO4.4.3 ADDITIONAL REQUIREMENT OF JSA AND PGSA

Total additional Requirement	JSA	PGSA
31	15	16

4.5 WORK MEASUREMENT OF ASSISTANTS

4.5.1 JOB DESCRIPTION CHART

HEAD OFFICE, ADMINISTRATION WING

<p style="text-align: center;">E1 Section</p>	<ol style="list-style-type: none">1) Requisition to Employment Exchange-Posting/Relieving through Employment Exchange in the Head Office/DO's/DC's of the Board for various posts2) Posting/Extension of deputationists in the Board3) Transfer and postings in the Board (General Transfer)4) Declaration of probation of staff in all cadres in the Board5) Promotion/Grade promotion for staff in the Board6) Pay revision implementation7) RTI's/LA interpellation/WP (c)/Sutharya Keralam Registration8) Amendment of service regulation in the Board9) Employment under dying-in-harness schemes in the Board10) LWA of staff in the Board11) Gradation list12) Test as pollution control acts and rules13) Appointment of standing counsel and additional standing counsel of the Board14) Appointment of legal adviser in the Board15) Deputation of Board staff to other organization16) PSC appointment in the Board17) Creation of posts recommended by SCMC18) Experience Certificate/NOC/NLC's for staff in the Board19) Shifting of posts20) Board Meeting
	<ol style="list-style-type: none">21) Preparation of salary bill of all the staff including deputation staff of Head Office (78 Staffs)22) Preparation of salary bill of Daily wages of waged staff (12 Staffs)23) Sanctioning of increments and earned leave surrender to all categories of the staff of Head Office, District Offices Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzha and all the EE/ES and above of the Board24) Maintenance of service books of all the staff of Head office and that of EE/ES and above the Board25) Sanctioning of all kinds of leaves of the staff of Head Office, District Offices Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzha and all the EE/ES and above of the Board

<p style="text-align: center;">E 2 Section</p>	<p>26) Pay revision of staff of the Board 27) Pay fixation of staff of the Board 28) Sanctioning of pensioner benefits and maintenance of pension books of all the staff of the Board 29) Pension revision of all the staff of the Board 30) Maintenance of Attendance register, Abstract register and casual leave register of Head Office staff & casual leave register of EE/ES and above of the Board 31) Remittance of LIC and handloom recoveries of the staff of Head Office 32) Profession tax, handloom recoveries of the staff of the Head Office 33) Leave salary and pension contribution of AO & ACO 34) Issuance of Last Pay Certificate of all the staff of Head office 35) Issuance of salary Certificates of the staff of Head Office 36) Co-Operative recoveries of the staff of Head Office 37) Preparation of Dearness Allowance arrear bill of the staff of Head Office 38) Retainer fee to the standing counsels and legal advisors of the Board 39) Papers relating to election (Lok Sabha, Niyama Sabha, Panchayaths) 40) All papers relating to the security staff of the Board 41) Maintenance of pay bill register</p>
<p style="text-align: center;">E 3 Section</p>	<p>42) Purchase and distribution of stationery items and maintenance of stock register 43) Printing of stationery items 44) Sanctioning of TA of the staff of the Head Office and all Heads of Office 45) Purchase of furniture and maintenance of stock register 46) Sanction of advertisements 47) Purchase of Government calendars and diaries 48) Reimbursement of telephone charge/News Paper charge to AO/ACO 49) Subscription of News Papers and Magazines in Head Office-Sanction of payment 50) Service charge of photocopy machines-Sanction of payment 51) Other miscellaneous papers in the establishment 52) Visit to regional stationery office and District forms store 53) Disbursement of TA to Board members 54) Purchase & filling of printer cartridges</p>
<p style="text-align: center;">E 4 Section</p>	<p>55) Stock verification 56) Official language Malayalam 57) Official advertising agency 58) Lokayuktha statement of assets & liabilities 59) GEA and PGSA Engineering 60) Engagement of commercial apprentice 61) Confidential reports 62) Issue of official mobile phones and SIM cards</p>

	<ul style="list-style-type: none"> 63) Attendance management system 64) Annual reports for the Board 65) File for Board Re-constitution 66) Submission of assets and liabilities
E 5 Section	<ul style="list-style-type: none"> 67) Inwards- Checking Tapal, Signing on AD card and Receiving, Opening Tapal and sorting, then sorted Tapal entered into inward register and distributed to respective wings for marking, receiving the Tapals after marking, then sorted to respective sections, then numbering Tapal and enter into distribution register for distribution to respective seats 68) Dispatches- Receive and check the tapal, Entering in dispatch register (cover address, Date, File No.), AD Card attaching if necessary, packing the cover, checking weight and then post stamp, attaching registration slip in the dispatch register for registered posts
E 6 Section	<ul style="list-style-type: none"> 69) Payment of official mobile phone bills 70) Payment of land phone bills of HO/Annexes 71) Payment of official internet connection of the staffs 72) Payment of electricity charge of HO/Annexes 73) Payment of water charge of HO 74) Rent of HO and annexed building 75) Non-refundable advance and temporary advance of Board employees 76) Group insurance scheme of Board employees 77) House building advance of Board employees 78) Medical reimbursement of Board employees 79) Works related to office shifting 80) LIC maturity claim 81) Personnel accidental claims 82) Board meeting

HEAD OFFICE, ACCOUNTS WING

A 1 Section	<ul style="list-style-type: none"> 1) Maintenance of all Treasury & Bank accounts 2) All receipts and payments related to HO 3) Imprest keeping 4) Voucher maintenance of HO and preparation of expenditure statement 5) Maintenance of cheque register, cash book and pass books of all accounts 6) Reconciliation of all accounts 7) Fixed deposits 8) Salary, pension, PF etc., (all cash transactions) other correspondence 9) Maintenance of register of RTI, EMD, security deposit, Bank guarantee, petty cash book 10) Maintenance of Note files & Correspondence files
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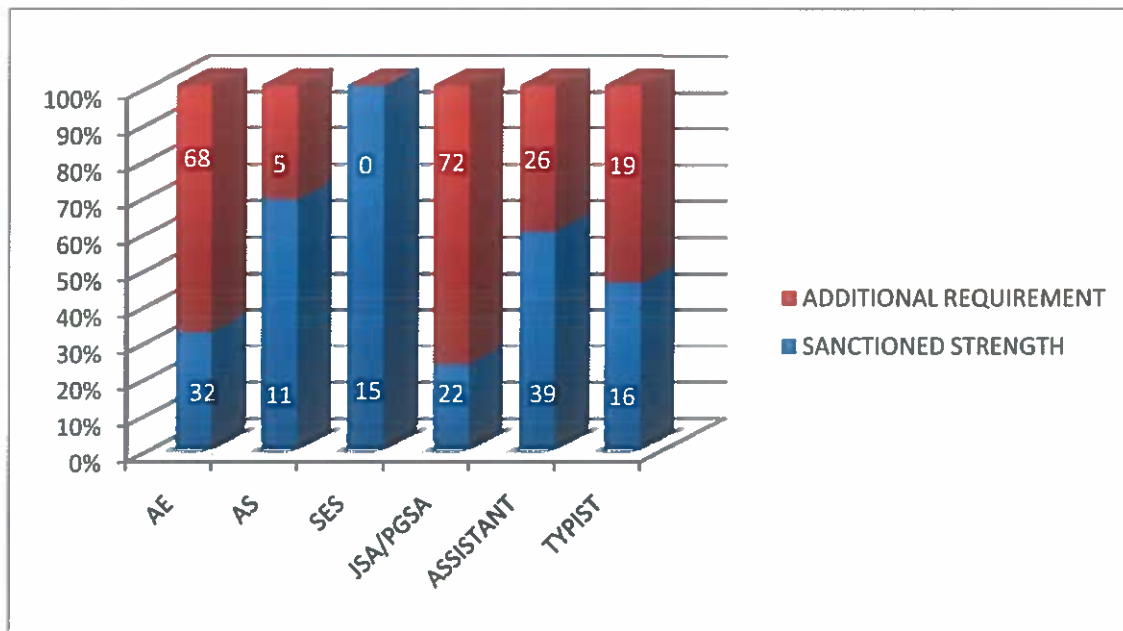
District Office, Kollam	156.45	22.2	178.65	42.65	-	1	1.31	0
District Office, Pathanamthitta	200.91	34.22	235.13	99.13	-	1	1.73	1
District Office, Alappuzha	81.73	1.94	83.67	-	52.33	1	0.62	0
District Office, Kottayam	297.15	45.51	342.66	70.66	-	2	2.51	1
District Office, Idukki	87.41	66.37	153.78	17.78	-	1	1.13	0
District Office 1, Ernakulam	209.61	39.96	249.57	113.57	-	1	1.84	1
District Office 2, Ernakulam	183.61	33.3	216.91	80.19	-	1	1.59	1
District Office, Thrissur	200.37	16.94	217.31	81.31	-	1	1.59	1
District Office, Palakkad	85.47	90.29	175.76	39.76	-	1	1.29	0
District Office, Malappuram	175.52	4.44	179.96	43.96	-	1	1.32	0
District Office, Wayanad	202.63	77.72	280.35	144	-	1	2.06	1
District Office, Kannur	173.14	29.77	202.91	66.91	-	1	1.49	1
District Office, Kasaragod	171.03	30.02	201.05	65.05	-	1	1.48	1
TOTAL	3446.97	844.27	4291.38	1119.61	229.3	25	31.54	10

The workload analysis of typists shows that there are 3446.97 hours of work in a month. If some of the works are redeployed from Technical staff, the additional workload will be 844.27 hours work in a month. Then the required number of typist will be 35 which show the need of additional 10 typists. It is noted that the District offices of Palakkad, Malappuram, Idukki, Alappuzha, Regional office Ernakulam and Thiruvananthapuram, Head Office Thiruvananthapuram, Central lab Ernakulam, Surveillance centre Ealoor are having adequate number of typists as per their working hours.

4.7 OVER ALL STAFF REQUIREMENT TABLE

DESIGNATION	SANCTIONED STRENGTH	TOTAL REQUIREMENT	ADDITIONAL REQUIREMENT
Assistant Engineer/GEA	32	100	68
Assistant Scientist	11	16	5
Senior Scientific Assistant	15	15	0
Junior Scientific Assistant/PGSA	22	94	72
Assistant	39	65	26
Typist	16	35	19
Total	135	325	190

4.8 OVER ALL STAFF REQUIREMENT BAR DIAGRAM



CHAPTER- V
FINDINGS, SUGGESTIONS,
RECOMMENDATIONS & CONCLUSION

FINDINGS, SUGGESTIONS, RECOMMENDATIONS & CONCLUSION

The findings of the study are based on the analysis of primary data collected from the field study, in-depth Interviews with officials at different levels and also from the points that emerged from Focused Group Discussion conducted with Officials of KSPCB. In the light of the outcome of field study, a few suggestions and recommendations were given for the effective functioning of KSPCB. Major findings of the study are as follows;

I. TECHNICAL AND SCIENTIFIC WING

Findings, suggestions, and recommendations

1. The major Technical functions of KSPCB are carried out by the Assistant Engineer. Many of their works are seen to be forerunners or initiatives to major technical functions of the Board. The Assistant Engineers are the cutting edge level functionaries who perform certain core activities of the Board. However, on analyzing the nature of work carried out by the Assistant Engineers, it is observed that few of their work is of purely operational and/or routine in nature, which can be completed by the staff working under them.
2. It is suggested that the activities performed by the Assistant Engineer, which are purely administrative in nature, can be transferred to the Administrative functionaries or the Ministerial staff, so that the Assistant Engineer can effectively concentrate more on Technical activities.
3. The Assistant Engineers are supported by the Graduate Engineering Apprentices in most of the functions. However, it is observed that due to lack of sufficient number of the Assistant Engineers these support level functionaries who are apprentices end up doing the core activities which are to be performed by the Assistant Engineers. This can be dangerous and is violation of statutes.
4. Considering the magnitude and importance of the work of the Assistant Engineers, it is suggested to strengthen this category. The work measurement analysis shows the requirement of 99 Assistant Engineers in the Board. Steps may be taken to add 67 more to the existing number of 32. It is suggested that, while recruiting additional Assistant

Engineers the Board may consider utilizing the experience of existing 58 Graduate Engineering Apprentices who are supporting or substituting the Assistant Engineers in the current situation.

5. Instead of strengthening the number of Assistant Engineers to 99, additional post of Junior Engineer (JE) may be created with the proportion of 1:1

Table No 5.1 Additional Requirement of AE and JE

Total Requirement	Existing number of AE	AE(Additional)	JE
99	32	17	50

6. The rationale for suggesting the Junior Engineer (JE) is, at present in the scientific wing there are JSA to support Assistant Scientist who is a same rank functionary to Assistant Engineers in the Technical Wing. So for the effective delivery of services at field level there is a need for Junior Engineers (JE) for assisting the Assistant Engineers in certain important technical functions such as in sample selection, measurement, stack monitoring etc.
7. It is suggested that the qualification of Junior Engineer (JE) for recruitment may be fixed as Diploma n relevant disciplines.
8. As per the recruitment of Junior Engineers KSPCB may formulate adequate Promotion policies with the amendment to the special rules. As a temporary strategy to fill the man power gap, currently KSPCB is resorting, to recruiting employees through Employment Exchange for a short period of 6 months. It has a disadvantage that, by the time those personnel get acquainted with the work their tenure will be completed.
9. Lack of permanency of personnel is a hindrance for the smooth functioning of KSPCB. It is observed that the short period of appointment of the Apprentices in Technical Wing and Scientific Wing is from Employment Exchange. Another factor is deputations from other Departments for the Ministerial Wing.
10. Hence it is recommended that the recruitment policy may be re-examined and reframed to induct persons with suitable academic qualification.

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- a) Depending more on deputation and recruitment of temporary staff is discouraged as there is a possibility of key posts remaining vacant
11. Assistant Scientists are responsible for all the scientific activities pertaining to analysis of samples at the District level. The shortage of one Assistant Scientist in Central Laboratory, Ernakulam and Regional Laboratory, Kozhikode is justified as per this study. Apart from these two, four more Assistant Scientists are required in the District Laboratories of Thiruvananthapuram, Kottayam, Palakkad and Kannur. Work Measurement of this category reveals the scope for transferring some more scientific activities to this category.
12. Stack monitoring of factories which is a critical work to be performed by the Assistant Engineer is to be performed by the officials of the board itself.
13. The analysis of the work distribution among the functionaries to different Offices shows that it is not in uniform order. Some of the Technical and Scientific personnel are engaging ministerial work also. Environmental Surveillance Centre functions 24 hours with the support of 4 Assistant Engineers. Therefore the following options may be considered:
- a) Shift system may be introduced at Environmental Surveillance Centre with certain intervals.
 - b) KSPCB should formulate a scientific pattern of shift system of 12/8 hours.
14. Though the Scientific Wing of Board comprising of Post Graduate Scientific Apprentice at the lowest level to the Chief Environmental Scientist at the highest level is effectively managing sample collection and testing. It is seen that the Board is not able to give ample attention to Research and Extension activities. Out of these functionaries in the Scientific Wing the study reveals that only one out of 15 posts of Senior Scientific Assistant is currently filled. This can be attributed that Senior Scientific Assistants are promotion posts of Junior Scientific Assistants and at present, the Board does not have any permanent Junior Scientific Assistants.
15. The Post Graduate Scientific Apprentices, requested to be engaged by KSPCB are supposed to assist Junior Scientific Assistants in testing of samples. The PGSA are selected for the tenure of 2 years and the present strength is 41 as against 60 allotted posts. The study suggests this system may continue, however the present practice of the

PGSA authenticating documents in place of AS/JSA is to be discouraged as PGSA are apprentices on short term contract basis and hence with limited accountability. In order to ensure effective monitoring, it is suggested that JSA/PGSA should work under the guidance and mentorship of AS/SSA.

16. The Junior Scientific Assistants along with Post Graduate Scientific Apprentice are the functionaries who actually perform the laboratory testing of the samples collected. Though the functionaries from two category possess same academic qualifications, their mode of recruitment is different. The Junior Scientific Assistants are recruited through Employment Exchange for a period of six months and on deputation. As against sanctioned strength of 22, the present strength of 34 including temporary staff seems to be inadequate and pendency in sample testing is noted. As per the study, an addition of 19 personnel in this category of Junior Scientific Assistants and Post graduate scientific Apprentice in the proportion of 1:1 would lead to reduction in the pendency. Hence strengthening of Junior Scientific Assistants and Post Graduate Scientific Apprentice would be desirable by a two-fold strategy- increasing the number of post from 34 to 53 and recruiting Junior Scientific Assistants on a permanent basis with Senior Scientific Assistant as their promotion post. The additional requirement of JSA and PGSA may be fixed in the proportion of 1:1.
17. In an organization like KSPCB the technical and scientific wing have a critical and statutory role as they form the back bone of the organization. The pay scale of JSA in Scientific Wing is 10480 – 18300. The scale is same for the Confidential Assistant of the board whose qualification is only SSLC. At the same time Assistant **Grade -1** in the board is getting Rs. 11620 – 20240 for which the qualification is Bachelors degree in any subject. The anomaly presented above is a sure way to discourage them and may push towards corrupt practices. This may be re-examined and necessary steps may be taken to revise the existing scale of JSA or, the salary scale of Confidential Assistant and Assistant Grade-1 should be fixed below that of JSA
18. Major functional units and sub units may be created for catering to critical functional areas of KSPCB (consent administration, hazardous wastes and substances, capacity building both physical and Human Resource Development, Revenue generation, Legal measures and Grievance and Complaint Redress Mechanism). Critical area of functions

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4. The Work Measurement analysis of Typist resulted in the requirement of 19 additional posts.
 5. Decentralizing administrative and financial powers at different levels of the hierarchy within the board.
 6. A customer friendly front office may be set up in all offices
 7. A scientific Promotion Policy may be framed which has provision for Incentives, Best Employee Award, Good Service Entry etc. to the committed functionaries as a motivational tool.
 8. The existing Purchase Committee may be restructured by including administrative staff for maintaining transparency on financial matters.
 9. A Public Relation wing may be constituted for documentation, Information dissemination and coordination of extension activities related to environment protection.
 10. Efforts to be initiated to ensure convergence of services between Local Self Government Institutions, Department of Health and Family Welfare, Police Department and Insurance Department.
 11. Decentralization of functions with Local Self Government Institutions to be implemented to reduce workload.
 12. Personal Register, Inward Register, Outward Register should be maintained in every office.
 13. File management is to be professionalized, and the maintenance of required registers to be ensured. Create a Computer based Data Network and Connectivity with Head office, Regional office and Laboratories. E-Office system and LAN may be introduced in all the offices of KSPCB.
 14. In order to take advantage of information technology, a Management Information System may be setup for enhancing the quality of decision making.
 15. License fee may be enhanced for all types of industries The responsibility to be fixed to the licensee while giving consent for starting industries/enterprises/smaller industrial units .An Affidavit may be introduced as mandatory for all categories of enterprises.
 16. Fine system may be introduced as penalty for violating environment protection rules.
 17. Introduce a time target action plan, citizen's charter and Right to Service in KSPCB.
 18. The Annual report of KSPCB should be prepared and published promptly.

of each category may be identified at the State level and prioritization may be done with time limit.

19. Establish comprehensive organizational systems with proper Reporting and Monitoring mechanism. Centralized Special monitoring cell may be constituted to overview the key activities.
20. A conversion plan may be prepared to convert the Administrative staff into technical support staff.
21. They may be provided adequate skill training to act as technical support staff
22. The service of external consultants may be initiated in emergency cases to avoid delay.
23. A mobile laboratory may be set up at regional level and up gradation of existing labs may be initiated so that these labs are equipped with state-of-the-art testing facilities.
24. Research and Development wing should be formed for the effective functioning of KSPCB. Model environmental impact assessment studies, major projects on environment development, may be done through this Research cell.
25. Constituting a Disaster Management Cell at regional level for addressing emergencies like Tanker accident, Chemical explosions etc. This may be equipped with latest equipments, trained man power, vehicle, ambulance etc.
26. Computerization of Consent Administration with on line application facility to be set up so that status of the consent order can be known to the public.

II. ADMINISTRATIVE WING

Findings, suggestions, and recommendations

1. From the analysis of the work done by the Assistants, it is clear that there are 40 Assistants including one, working on daily wage basis in the Board. In District Offices viz., Ernakulam and Kozhikode no Assistants are working and at present functions of the Assistants are completed by the Assistant Engineers.
2. It is suggested that one Assistant each may be provided to the said Offices. The Work Measurement analysis shows that there is the need for 26 additional requirement of Assistant in KSPCB.
3. Presently 25 Typists are working in the board out of which 16 are on permanent basis and 9 as temporary.

III. INFRASTRUCTURE DEVELOPMENT

Findings, suggestions, and recommendations

1. Since lack of adequate infrastructure facilities including vehicle for inspection cause a major hurdle in the activities, step may be taken to upgrade the existing infrastructure.
2. The laboratory may be equipped with state-of-the-art facilities and adequate safety measures.

IV. CAPACITY BUILDING

Findings, suggestions, and recommendations

1. Constitute a Centralized Training Institute for capacity building of functionaries.
2. Proper Induction training, refresher training and other special training on required areas may be provided to functionaries periodically.
3. The Key officials of KSPCB may be provided special training on secret policing since they have to chase the Polluters (Hotels, Flats, and Hospitals etc.) They may be provided with a security teams as and when required.

The whole process of KSPCB has been evolved through an analytical method with the help of Organizational Analysis/ Work Method/ Work Measurement. It is supposedly clear from the study that, the present capacity of manpower in KSPCB should be re-structured, in such a way that the Delivery of Service to public must be efficient and prompt. The role and responsibilities of each category of functionaries has to be re-examined and finalized in the light of current challenges. The further scope of this study relays on a detailed process study, i.e. in a long-term point of view the KSPCB can develop and adopt newer strategies for improving the delivery of services by fulfilling requirements of the public.



**INSTITUTE OF MANAGEMENT IN GOVERNMENT (IMG)
THIRUVANANTHAPURAM-695033**



INSTITUTE OF MANAGEMENT IN GOVERNMENT THIRUVANANTHAPURAM

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**WORK STUDY REPORT OF
KERALA STATE POLLUTION CONTROL BOARD**
(September 24th 2012 to January 24th 2013)

PART TWO



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WORK MEASUREMENT TABLES OF **ASSISTANT ENGINEER**

From: - Table No: 1.1

To: - Table No: 1.20

Table No: I.1

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN HEAD OFFICE TVM					
Department: Kerala state pollution control board			Designation: Assistant Engineer		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Public interaction	Daily	8	5	16.00
2	Registers Maintenance	Daily	7	5	14.00
3	Transparency				
a	Soft copy preparation of updated details and mailing	Daily	4	25	40.00
4	Registration under E Waste rule	Monthly	1	40	0.66
5	Registration under battery rule	Monthly	1	40	0.66
6	Vehicle Maintenance and hiring	Monthly	1	60	1.00
7	Reporting regarding bio medical rule	Monthly	3	60	3.00
8	Public awareness	Monthly	3	60	3.00
9	Consent administration				
a	Application verification	yearly	440	3	1.83
b	File generation	yearly	440	3	1.83
c	Verification of details	yearly	440	5	3.05
d	Noting observations and recommendations	yearly	440	10	6.11
e	Draft consent preparation	yearly	440	20	12.22
f	File submission to the higher level	yearly	440	3	1.83
g	Discussion at various level	yearly	440	20	12.22
h	Preparation of fair copy of approve d draft	yearly	440	20	12.22
i	preparation and submission of F C to higher level	yearly	440	13	7.94
j	Transferring the signed document to the dispatch section	yearly	440	3	1.83
10	Registration under H W rule				
a	Receiving application	yearly	49	3	0.20
b	File generation	yearly	49	3	0.20
c	Document verification	yearly	49	5	0.34
d	Note the findings in the file	yearly	49	5	0.34
e	Preparation of draft registration	yearly	49	20	1.36
f	File submission to the higher level	yearly	49	3	0.20

g	Fair copy preparation of the approved registration	yearly	49	10	0.68
h	Submission to the higher level	yearly	49	3	0.20
i	Transferring the signed document to the dispatch section	yearly	49	3	0.20
11	Complaints / representation regarding norms				
a	Receiving inwards	yearly	2720	2	7.55
b	File generation	yearly	2720	3	11.33
c	Forwarding copy of complaints to DO and concerned officers	yearly	2720	10	37.77
d	Follow up works with DO's	yearly	2720	25	94.44
e	Receiving inspection report from offices concerned	yearly	2720	25	94.44
f	Drafting of report (reply) to the concerned party	yearly	2720	30	113.33
g	typing of report (reply) to the concerned party	yearly	2720	10	37.77
h	Put up the file to higher level	yearly	2720	8	30.22
i	Discussions at various level	yearly	2720	20	75.55
j	Prepare FC of the approved draft	yearly	2720	10	37.77
k	Transferring the signed document to the dispatch section	yearly	2720	3	11.33
12	RTI Annual report	yearly	2720	10	37.77
14	Duties related with court cases, appellate authority and Lok Ayuktha				
a	Reception of notice	yearly	1830	2	5.08
b	File generation	yearly	1830	3	7.62
c	Drafting of authorization	yearly	1830	17	43.20
d	typing of authorization	yearly	1830	8	20.33
e	Receipt of judgments	yearly	1830	2	5.08
f	Verification of judgment	yearly	1830	15	38.12
g	Forwarding judgments to the concerned offices	yearly	1830	2	5.08
h	Drafting a counter report to the court	yearly	1830	20	50.83
i	Drafting a Para wise report to the Court	yearly	1830	40	101.66
j	Forwarding draft to higher level	yearly	1830	5	12.70
k	Clarifying and counter checking the bills of advocates	yearly	1830	5	12.70
l	Drafting of proceeding of bill payment	yearly	1830	3	7.62
m	Preparation of FC of approved drafts	yearly	1830	10	25.41

n	Transferring the signed documents to the account section	yearly	1830	2	5.08
o	Receiving of cheques	yearly	1830	2	5.08
p	Preparation of fair copy of approved draft	yearly	1830	10	25.41
q	Drafting of cheques forwarded to the advocate	yearly	1830	3	7.62
r	Transfer the signed document to the dispatch section	yearly	1830	2	5.08
15	Right to information act General / Appeal				
a	Application receiving	yearly	501	3	2.08
b	File generation	yearly	501	3	2.08
c	Information collection	yearly	501	30	20.87
d	Drafting interim or final reply to the applicant	yearly	501	10	6.95
e	Drafting reply to the RTI general section	yearly	501	10	6.95
f	Submitting to the higher level	yearly	501	2	1.39
g	Preparation of FC	yearly	501	10	6.95
h	submit to the H L	yearly	501	5	3.47
i	Drafting letter forwarding copies to the applicant	yearly	501	3	2.08
j	Preparing FC	yearly	501	10	6.95
k	Transferring signed documents to the dispatch section	yearly	501	3	2.08
16	Hearings conducted at higher levels by Chairman MS or CEE				
a	Drafting hearing notice to the concerned party	yearly	170	20	4.72
b	Preparation of FC	yearly	170	10	2.36
c	Transferring signed documents to the dispatch section	yearly	170	2	0.47
d	Intimating concerned people over phone	yearly	170	2	0.47
e	Recording the minutes of hearing Drafting the minutes and submitting	yearly	170	25	5.90
f	Preparation of FC- Minutes	yearly	170	10	2.36
g	transfer to the dispatch	yearly	170	10	2.36
h	Follow up the decisions made and the actions taken	yearly	170	5	1.18
17	Board meetings agenda notes				
a	Drafting	yearly	37	20	1.02
b	Preparation of FC	yearly	37	10	0.51
c	Transferring to the concerned general section	yearly	37	2	0.10

d	Follow up the action initiation of the board meeting	yearly	37	5	0.25
18	Reply to the audit Query				
a	Drafting	yearly	44	20	1.22
b	Preparation of FC	yearly	44	10	0.61
c	Transferring the concerned general section	yearly	44	2	0.12
19	Arranging public hearings				
a	Receiving application	yearly	7	2	0.01
b	Verifying for adequate fee and significant documents	yearly	7	10	0.09
c	Drafting letter to the district collector	yearly	7	20	0.19
d	Notice preparation	yearly	7	10	0.09
e	Publishing in media	yearly	7	10	0.09
f	Drafting letters to the concerned people	yearly	7	20	0.19
g	Drafting letters to MOEF	yearly	7	10	0.09
h	Preparation of FC	yearly	7	10	0.09
i	Transferring to the dispatch section	yearly	7	2	0.01
j	Drafting letters to the concerned district office	yearly	7	10	0.09
k	Drafting Proceedings regarding to cash release	yearly	7	10	0.09
l	Preparation of FC	yearly	7	10	0.09
m	Transferring the FC to the dispatch	yearly	7	2	0.01
n	Receiving of minutes verification	yearly	7	2	0.01
o	Drafting covering letters and forward minutes to the MOEF	yearly	7	10	0.09
p	Preparation of FC	yearly	7	5	0.04
q	Transfer to the dispatch section	yearly	7	2	0.01
20	Details of the consent issued, list preparation and submission to the board meeting and review meetings	yearly	32	15	0.66
21	Follow up activities on the reports submitted to government in legal committee	yearly	11	20	0.30
22	Follow-up actions on the discussion of high level committee meeting	yearly	11	20	0.30
23	Providing information to the general section dealing with assembly questions	yearly	362	10	5.02
24	Clarification to the concerned district office with respect to the consent application consent and issue of reminders				
a	Drafting	yearly	200	20	5.55
b	preparation of FC	yearly	200	10	2.77
c	Transferring to dispatch section	yearly	200	3	0.83

25	Arranging board meeting				
a	Agenda preparation	yearly	6	20	0.16
b	Drafting intimation letter	yearly	6	5	0.04
c	Drafting letter for hall arrangement	yearly	6	5	0.04
d	FC to dispatch	yearly	6	5	0.04
e	Forwarding agenda to board members	yearly	6	5	0.04
f	Draft FC of proceeding in advance to the BM	yearly	6	10	0.08
g	Physical verification of venue	yearly	6	30	0.25
h	Transportation and accommodation arrangements	yearly	6	20	0.16
i	Bill settling	yearly	6	10	0.08
j	Dictation of minutes	yearly	6	30	0.25
k	FC of minutes preparation	yearly	6	10	0.08
l	Forwarding of minutes	yearly	6	5	0.04
26	Plan scheme				
a	File opening	yearly	70	3	0.29
b	Discussion on all levels	yearly	35	20	0.97
c	Draft proposal preparation	yearly	70	20	1.94
d	FC of proposal preparation	yearly	70	10	0.97
e	Letters to all DOs and ROs for proposal submission	yearly	35	10	0.48
f	Meeting with all DO s	yearly	35	30	1.45
g	Follow up with DOs	yearly	35	10	0.48
h	Processing of received proposals	yearly	35	10	0.48
i	Ground work for the Issuing of technical sanction	yearly	35	10	0.48
j	Processing administrative sanction from Govt.	yearly	35	10	0.48
k	Draft administrative sanction from board	yearly	35	10	0.48
l	Follow up at various levels	yearly	35	30	1.45
m	Meeting with outside agency	yearly	35	10	0.48
n	Proceedings arrangements, draft preparation and bill settlement	yearly	35	10	0.48
o	Submission to Govt. departments	yearly	35	30	1.45
p	Draft and FC of annual board report	yearly	35	10	0.48
q	Submission to Govt. for additional grant	yearly	35	3	0.14
r	Follow up of past schemes	yearly	35	25	1.21
27	Award enquiry	yearly	1	120	0.16
28	Project related meeting and registers	yearly	100	60	8.33
29	Building Maintenance	yearly	2	180	0.50
30	Legislative committee reports	yearly	1152	30	48.00

31	Equipments maintenance	yearly	2	180	0.50
32	Public accounts committee reports	yearly	6	50	0.41
	Subtotal				1292.31
	Constant allowance @ 11%				142.15
	Total work content				1434.46
	Present number of Assistant Engineer				11.00
	Man-hours available per month per person				136.00
	Number of person required				10.5

Table No: 1.2

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN TVM REGIONAL OFFICE					
Department: KSPCB			Designation: Assistant Engineer		
Section : Sample stations			Shift: General shifts		
SI No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent administration				
a	Application verification	Daily	5	3	6.00
b	File generation	Daily	5	3	6.00
c	Verification of details	Daily	5	5	10.00
d	Calculation adequate fee	Daily	5	10	20.00
e	Noting observations and recommendations	Daily	5	5	10.00
f	Draft consent preparation	Daily	2	20	16.00
g	Discussion at various level	Daily	5	30	60.00
h	Field inspection	Daily	5	90	180.00
i	Preparation of fair copy of approved draft	Daily	5	10	20.00
j	Submission of F C to higher level	Daily	5	3	6.00
k	Transferring the signed document to the dispatch section	Daily	5	3	6.00
2	Transparency				0.00
a	Soft copy preparation of updated details and mailing	Daily	1	30	12.00
3	Registers Maintenance	Daily	15	5	30.00
4	Complaints				
a	Receiving inwards	Weekly	3	3	0.60
b	File generation	Weekly	3	3	0.60
c	Forwarding copy of complaints to DO and concerned officers	Weekly	3	3	0.60
d	Follow up works with DO's	Weekly	3	10	2.00
e	Receiving inspection reports from Dos	Weekly	3	3	0.60

f	Drafting and typing of report (reply) to the concerned party	Weekly	3	45	9.00
g	Noting in the file and submit to the higher level	Weekly	3	8	1.60
h	Discussions at various level	Weekly	3	20	4.00
i	Prepare FC of the approved draft	Weekly	3	10	2.00
j	Transferring the signed document to the dispatch section	Weekly	3	3	0.60
5	Training to officers				0.00
a	Draft nomination and proceeding preparation	Weekly	5	30	10.00
b	Submitting to higher level and follow up	Weekly	5	15	5.00
c	Preparation of FC and to dispatch	Weekly	5	13	4.33
6	Right to information act				0.00
a	Application receiving	Weekly	3	3	0.60
b	File generation	Weekly	3	3	0.60
c	Information collection	Weekly	3	30	6.00
d	Drafting interim or final reply to the applicant	Weekly	3	30	6.00
e	Drafting reply to the RTI general section	Weekly	3	15	3.00
f	Submitting to the higher level	Weekly	3	3	0.60
g	Preparation of FC and submit to the H L	Weekly	3	13	2.60
h	Transferring to the dispatch section	Weekly	3	3	0.60
i	Drafting letter forwarding copies to the applicant	Weekly	3	15	3.00
j	Preparing FC	Weekly	3	10	2.00
k	Transferring signed documents to the dispatch section	Weekly	3	3	0.60
7	Duties related with court cases, appellate authority and Lok Ayuktha				
a	Reception of application	Monthly	5	3	0.25
b	File generation	Monthly	5	3	0.25
c	Drafting and typing of authorization	Monthly	5	20	1.67
d	Receipt of judgments	Monthly	5	10	0.83
e	Forwarding judgments to the concerned offices	Monthly	5	15	1.25
f	Drafting a counter report to the court	Monthly	5	30	2.50
g	Drafting a Para wise report to the Court	Monthly	5	40	3.33
h	Clarifying and counter checking the bills of advocates	Monthly	5	15	1.25
i	Drafting of proceeding of bill payment	Monthly	5	15	1.25
j	Preparation of FC of approved drafts	Monthly	5	10	0.83
k	Transferring the signed documents to the account section	Monthly	5	3	0.25

l	Receiving of cheques	Monthly	5	3	0.25
m	Preparation of fair copy of approved draft	Monthly	5	10	0.83
n	Drafting of cheques forwarded to the advocate	Monthly	5	10	0.83
o	Transfer the signed document to the dispatch section	Monthly	5	3	0.25
8	Hearings conducted at higher levels by Chairman MS or CEE				0.00
a	Drafting hearing notice to the concerned	Monthly	2	20	0.67
b	Preparation of FC	Monthly	2	10	0.33
c	Transferring signed documents to the dispatch section	Monthly	2	3	0.10
d	Recording the minutes of hearing Drafting the minutes and submitting	Monthly	2	40	1.33
e	Preparation of FC and transfer to the dispatch	Monthly	2	15	0.50
f	Follow up the decisions made and the actions taken	Monthly	2	10	0.33
9	Reply to the audit Query	Monthly	3	60	3.00
10	Clarification to the concerned district office with respect to the consent application consent and issue of reminders				0.00
a	Drafting	Monthly	10	20	3.33
b	preparation of FC	Monthly	10	10	1.67
c	Transferring to dispatch section	Monthly	10	3	0.50
11	Sabarimala duty				
a	Preliminary meetings	Yearly	10	40	0.56
b	Minutes preparation	Yearly	10	20	0.28
c	Proceedings preparation and approval	Yearly	10	60	0.83
d	Duty schedule preparation	Yearly	2	120	0.33
	Subtotal				478.13
	Constant allowance @ 11%				52.59
	Total work content				530.73
	Present number of Assistant Engineer				136.00
	Man-hours available per month per person				3.00
	Number of person required				3.

Table No: 1.3

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN R.O ERANAKULAM					
Department: Kerala state pollution control board			Designation: Assistant Engineer		
Section : Sample stations			Shift: General shifts		
SI No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Maintenance of equipments	Daily	5	10	20
2	Record keeping of news paper clippings	Daily	2	5	4
3	Maintenance of online air monitoring stations	Daily	4	10	16
4	General technical files	Daily	12	10	48
5	Haring of vehicle, log book management and bill verification	Daily	8	20	64
5	Field inspection	weekly	14	60	56
6	Consent administration	Daily	5	20	40
7	Consent administration of ESC Eloor	weekly	3	30	6
8	Consent administration in Kottayam district	weekly	2	30	4
9	Correspondence with customs authorities	weekly	2	25	3.33
10	Plan scheme project works	weekly	3	15	3
11	Municipal solid waste file administration	weekly	4	15	4
12	Co-ordination of meetings	weekly	10	20	13.33
13	Office library maintenance	weekly	2	15	2
14	Random inspection in industries	weekly	2	30	4
15	Monthly river monitoring	Monthly	8	30	4
16	periodical report to HO	Monthly	10	30	5
17	Registration under plastic water rule	Monthly	2	40	1.33
18	Meeting of Ernakulam district Environment committee	Monthly	5	40	3.33
19	Registration under E waste rule	Monthly	4	40	2.66
20	Registration under battery rules	Monthly	2	40	1.33
21	Implementation of Municipal Solid Waste rules	Monthly	10	40	6.66
	Subtotal				312
	Constant allowance @ 11%				34.32
	Total work content				346.32
	Present number of Assistant Engineer				136

Man-hours available per month per person					2
Number of person required					2.54

Table No: 1.4

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN REGIONAL OFFICE KOZHIKODE					
Department: Kerala state pollution control board			Designation: Assistant Engineer		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Technical screening of files from DO's	Daily	8	20	64
2	Technical screening of files and classification of inwards	Daily	10	10	40
3	Complaint verification	Daily	3	10	12
4	Technical letter drafting to Do's	Daily	7	20	56
5	Consent administration	Daily	3	60	72
6	Works related with miscellaneous letters received	Daily	10	5	20
7	Putting up of files	Daily	10	3	12
8	Entering VR to the registers(received from DO)	Daily	5	15	30
9	Putting up and writing VR files	Daily	10	15	60
10	Typing draft consents	Daily	5	20	40
11	Typing notices	Daily	5	20	40
12	Fair copy preparation of consent order	Daily	3	10	12
13	Proof reading of typed letters (of typist)	Daily	10	5	20
14	Making Fair copy of letters to SEE's	Daily	10	3	12
15	Right to information act related works	weekly	2	30	4
16	Municipal solid waste	weekly	4	30	8
17	Urgent reports HO and RO	Monthly	2	200	6.66
18	Preparing pending list	Monthly	1	300	5

19	Program report preparation to HO	Monthly	1	30	0.5
20	Inspection to industries	Monthly	5	90	7.5
21	Plan scheme project	Yearly	1	180	0.25
	Subtotal				521.91
	Constant allowance @ 11%				57.41
	Total work content				579.32
	Present number of Assistant Engineer				136
	Man-hours available per month per person				4
	Number of person required				4.25

Table No: 1.5

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN TVM DISTRICT OFFICE					
Department: KSPCB			Designation: Assistant Engineer		
Section: Sample Stations			Shift: General		
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Public interaction and Phone Call	Daily	30	5	60.00
2	General report called from RO/HO				
a	Fair copy preparation and put up	Weekly	3	50	10.00
3	Consent administration				
a	File generation - Checking documents ,attachments and fees	Monthly	250	10	41.67
b	primary scrutinizing	Monthly	120	5	10.00
c	clarifying the discrepancies	Monthly	120	5	10.00
d	Final verification by AE	Monthly	120	10	20.00
e	Scrutinizing of application	Monthly	120	2	4.00
f	Application put up with old file records	Monthly	120	5	10.00
g	computer data updating	Monthly	120	5	10.00
h	clarifying the discrepancies	Monthly	120	5	10.00
i	Draft preparation	Monthly	180	20	60.00
j	Finalizing the report	Monthly	110	10	18.33
k	Inspection / Sampling/ Sound monitoring	Monthly	70	120	140.00

l	preparation of inspection report	Monthly	65	20	21.67
m	Sample hand over to lab	Monthly	147	3	7.35
n	draft consent	Monthly	95	5	7.92
o	Draft V.R	Monthly	55	5	4.58
p	clarifying the discrepancies	Monthly	42	5	3.50
q	Consent refusal intention	Monthly	2	7	0.23
r	fair copy checking	Monthly	236	5	19.67
4	Complaint related activities				0.00
a	File generation - Checking documents and attachments	Monthly	75	6	7.50
b	Entering in to the register/ Computer	Monthly	56	3	2.80
c	Draft preparation & Fair copy setting	Monthly	55	20	18.33
d	Draft letter to local authority/ Complainant/ Industry	Monthly	40	5	3.33
e	Entering in to the register	Monthly	55	3	2.75
5	RTI Request				0.00
a	Verification/ entering in register	Monthly	21	6	2.10
b	Draft preparation and file put up	Monthly	21	20	7.00
c	Fair copy preparation and put up	Monthly	21	10	3.50
6	Court cases /OBDN/ WPC Lok Ayuktha Cases				0.00
a	verification of case with previous records	Monthly	10	20	3.33
b	Entering in to the register/ Computer	Monthly	10	5	0.83
c	file put up	Monthly	10	3	0.50
7	Complaints/ High court cases/ HRMP etc				0.00
a	Sampling	Monthly	5	120	10.00
b	preparation of inspection report	Monthly	3	10	0.50
c	draft report	Monthly	3	20	1.00
8	General work				0.00
a	List preparation (eg. Quarry details)	Monthly	13	60	13.00
9	Joint inspection	Monthly	5	120	10.00
10	Hearing conducted at D.O	Monthly	6	60	6.00
11	Staff meeting	Monthly	10	60	10.00
12	Stack monitoring	Monthly	6	90	9.00

13	Report called from , District collector, Board meeting, Review meeting etc.				0.00
a	verification and Registration	Monthly	12	5	1.00
b	Preparation of reports	Monthly	12	40	8.00
14	Regular/Random inspections	Monthly	40	45	30.00
15	Details mailing to HO	Monthly	15	30	7.50
16	Monthly report				0.00
a	Preparation of monthly report of consent issued	Monthly	1	20	0.33
17	Sutharya Keralam/ Complaint forwarded from head office, Regional office, District collector, ADM etc.				0.00
a	verification of case with previous records / entering in register	Yearly	3	20	0.08
b	preparation of file	Yearly	3	3	0.01
c	data collection for reports	Yearly	3	15	0.06
d	draft report and file put up	Yearly	3	20	0.08
18	Registration under plastic rule	Yearly	2	40	0.11
19	Providing information to the general section dealing with assembly questions	Yearly	3	15	0.06
20	Details of the consent issued, list preparation and submission to the board meeting and review meetings	Yearly	3	10	0.04
21	Reply to audit query	Yearly	2		0.00
22	General report to HO	Yearly	14	40	0.78
	Subtotal				628.47
	Constant allowance @ 11%				69.13
	Total work content				697.60
	Present number of Assistant Engineer				6.00
	Man-hours available per month per person				136.00
	Number of person required				5.13

Table No: 1.6

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN KOLLAM DISTRICT OFFICE					
Department: KSPCB			Designation: Assistant Engineer		
Section: Sample Stations			Shift: General		
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Consent related activities				
a	File generation - Checking documents ,attachments and fees	Daily	8	3	9.60
b	primary scrutinizing	Daily	8	5	16.00
c	clarifying the discrepancies	Daily	8	5	16.00
d	Final verification & submission to the AE	Daily	8	3	9.60
e	Application put up with old file records	Daily	8	15	48.00
f	computer data updating	Daily	8	5	16.00
g	Draft preparation	Daily	8	20	64.00
h	Inspection or Sampling	Weekly	10	60	40.00
i	preparation of inspection report	Weekly	10	30	20.00
j	Sample hand over to lab	Weekly	10	5	3.33
k	Draft V.R	Daily	8	20	64.00
l	clarifying the discrepancies	Daily	8	10	32.00
m	Consent refusal intention	Monthly	5	3	0.25
n	fair copy checking	Daily	8	10	32.00
2	Reporting to HO	Daily	1	15	6.00
3	Complaint related activities				
a	File generation - Checking documents and attachments	Daily	3	3	3.60
b	Entering in to the register/ Computer	Daily	3	10	12.00
c	Draft preparation & Fair copy setting	Daily	3	20	24.00
d	Draft letter to local authority/ Complainant/ Industry	Daily	3	20	24.00
e	Entering in to the register	Daily	3	5	6.00
4	Public interaction and Phone Calls	Daily	10	5	20.00
5	RTI Request				
a	Fair copy preparation and put up	Daily	2	10	8.00
6	Complaints/ High court cases/ HRMP etc				

a	preparation of inspection report	Weekly	2	40	5.33
7	Legislative Committee/ Rajya Sabha/ Lok Sabha/ Parliamentary questions/ Assembly questions	Weekly			
a	Verification/ entering in register	Weekly	1	3	0.20
b	data collection for reports	Weekly	1	25	1.67
c	draft report and file put up	Weekly	1	25	1.67
8	Regular inspections	Weekly	1	40	2.67
9	Random inspections	Weekly	1	60	4.00
10	Public interaction	Weekly	1	7	0.47
11	Registration under H W rule				
a	Receiving application	Weekly	3	3	0.60
b	File generation	Weekly	3	3	0.60
c	Document verification	Weekly	3	5	1.00
d	Note the findings in the file	Weekly	3	8	1.60
e	Preparation of draft registration	Weekly	3	20	4.00
f	File submission to the higher level	Weekly	3	3	0.60
g	Fair copy preparation of the approved registration	Weekly	3	10	2.00
h	Submission to the higher level	Weekly	3	3	0.60
i	Transferring the signed document to the dispatch section	Weekly	3	3	0.60
12	Accidental inspection				
a	inspection	Weekly	1	90	6.00
b	Fair copy preparation	Weekly	1	30	2.00
13	General work				
a	List preparation (eg. Quarry details)	Weekly	2	20	2.67
14	General report called from RO/HO				
a	Fair copy preparation and put up	Weekly	2	30	4.00
15	Report regarding bio medical rule	Monthly	1	30	0.50
16	Joint inspection with other departments	Monthly	1	90	1.50
17	Award enquiry	Yearly	1	360	0.50
18	Janasamparka Paripadi	Yearly	1	360	0.50
19	Public awareness	Yearly	1	360	0.50
20	Equipments maintenance	Yearly	2	360	1.00
	Subtotal				521.15

	Constant allowance @ 11%				57.33
	Total work content				578.48
	Present number of Assistant Engineer				136.00
	Man-hours available per month per person				3.00
	Number of person required				4.25

Table No: 1.7

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN PATHANAMTHITTA DISTRICT OFFICE					
Department: Kerala state pollution control board			Designation: Assistant Engineer		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Consent administration	Daily			
a	Application verification	Daily	12	3	14.40
b	File generation	Daily	10	3	12.00
c	Verification of details	Daily	4	10	16.00
d	Calculation adequate fee	Daily	10	10	40.00
e	Noting observations and recommendations	Daily	12	8	38.40
f	Draft consent preparation	Daily	7	20	56.00
g	File submission to the higher level	Daily	20	3	24.00
h	Discussion at various level	Daily	2	20	16.00
i	Preparation of fair copy of approve d draft	Daily	5	10	20.00
j	Submission of F C to higher level	Daily	5	3	6.00
k	Transferring the signed document to the dispatch section	Daily	5	3	6.00
2	Transparency	Daily			0.00
a	Soft copy preparation of updated details and mailing	Daily	1	20	8.00
3	Public interaction	Daily	20	5	40.00
4	Follow up activities on the reports submitted to government in legal committee	Daily	3	10	12.00
5	Follow-up actions on the discussion of high level committee meeting	Daily	3	15	18.00

6	Providing information to the general section dealing with assembly questions	Daily	10	8	32.00
7	Regular inspections	Weekly	15	40	40.00
8	Details of the consent issued, list preparation and submission to the board meeting and review meetings	Monthly	6	90	9.00
9	Registration under battery rule	Monthly	5	40	3.33
10	Registration under plastic rule	Monthly	5	40	3.33
11	Reporting regarding bio medical rule	Monthly	3	40	2.00
12	Joint inspection with other departments	Monthly	4	90	6.00
13	Project related meeting	Monthly	3	30	1.50
14	Reporting to HO	Monthly	15	15	3.75
15	Random inspections	Monthly	3	60	3.00
16	Registration under H W rule				0.00
a	Receiving application	Monthly	15	3	0.75
b	File generation	Monthly	15	3	0.75
c	Document verification	Monthly	15	10	2.50
d	Note the findings in the file	Monthly	15	10	2.50
e	Preparation of draft registration	Monthly	12	20	4.00
f	File submission to the higher level	Monthly	12	3	0.60
g	Fair copy preparation of the approved registration	Monthly	10	10	1.67
h	Submission to the higher level	Monthly	10	3	0.50
i	Transferring the signed document to the dispatch section	Monthly	8	3	0.40
17	Complaints	Monthly			0.00
a	Receiving inwards	Monthly	190	3	9.50
b	File generation	Monthly	50	3	2.50
c	Forwarding copy of complaints to DO and concerned officers	Monthly	15	5	1.25
d	Drafting and typing of report (reply) to the concerned party	Monthly	40	25	16.67
e	Noting in the file and submit to the higher level	Monthly	40	8	5.33
f	Discussions at various level	Monthly	5	20	1.67
g	Prepare FC of the approved draft	Monthly	20	10	3.33
h	Transferring the signed document to the dispatch section	Monthly	20	3	1.00

18	Duties related with court cases, appellate authority and Lok Ayuktha	Monthly			0.00
a	Reception of notice	Monthly	10	3	0.50
b	File generation	Monthly	10	3	0.50
c	Drafting of authorization	Monthly	8	20	2.67
d	Receipt of judgments	Monthly	2	3	0.10
e	Drafting a counter report to the court	Monthly	4	60	4.00
f	Drafting a Para wise report to the Court	Monthly	2	60	2.00
g	Clarifying and counter checking the bills of advocates	Monthly	2	10	0.33
h	Drafting of proceeding of bill payment	Monthly	2	10	0.33
i	Preparation of FC of approved drafts	Monthly	2	5	0.17
j	Transfer the signed document to the dispatch section	Monthly	7	3	0.35
19	Hearings conducted at higher levels by Chairman MS or CEE	Monthly			0.00
a	Drafting hearing notice to the concerned	Monthly	3	15	0.75
b	Preparation of FC	Monthly	3	10	0.50
c	Transferring signed documents to the dispatch section	Monthly	3	3	0.15
d	Intimating concerned people over phone	Monthly	3	20	1.00
e	Recording the minutes of hearing Drafting the minutes and submitting	Monthly	3	10	0.50
f	Preparation of FC	Monthly	3	10	0.50
	transfer to the dispatch	Monthly	3	7	0.35
g	Follow up the decisions made and the actions taken	Monthly	3	10	0.50
20	Reply to the audit Query	Monthly			0.00
a	Drafting	Monthly	2	30	1.00
b	Preparation of FC	Monthly	2	10	0.33
c	Transferring the concerned general section	Monthly	2	3	0.10
21	Arranging public hearings	Yearly			
a	Receiving application	Yearly	2	3	0.01
b	Verifying for adequate fee and significant documents	Yearly	2	10	0.03
c	Drafting letter to the district collector	Yearly	2	20	0.06
d	Notice preparation	Yearly	2	15	0.04
e	Publishing in media	Yearly	2	15	0.04

f	Drafting letters to the concerned people	Yearly	2	20	0.06
g	Drafting letters to MOEF	Yearly	2	20	0.06
h	Preparation of FC	Yearly	2	10	0.03
i	Transferring to the dispatch section	Yearly	2	3	0.01
j	Drafting letters to the concerned district office	Yearly	2	15	0.04
k	Drafting Proceedings regarding to cash release	Yearly	2	5	0.01
l	Preparation of FC	Yearly	2	10	0.03
m	Transferring the FC to the dispatch	Yearly	2	3	0.01
n	Receiving of minutes verification	Yearly	2	3	0.01
o	Transfer to the dispatch section	Yearly	2	3	0.01
22	Board meetings agenda notes	Yearly			0.00
a	Drafting	Yearly	4	20	0.11
b	Preparation of FC	Yearly	4	10	0.06
c	Transferring to the concerned general section	Yearly	4	3	0.02
23	Right to information act	Yearly			0.00
a	Application receiving	Yearly	160	3	0.67
b	File generation	Yearly	160	3	0.67
c	Information collection	Yearly	160	15	3.33
d	Drafting interim or final reply to the applicant	Yearly	160	20	4.44
e	Drafting reply to the RTI general section	Yearly	160	15	3.33
f	Submitting to the higher level	Yearly	160	3	0.67
g	Preparation of FC	Yearly	160	7	1.56
h	submit to the H L	Yearly	160	3	0.67
i	Transferring to the dispatch section	Yearly	160	3	0.67
j	Drafting letter forwarding copies to the applicant	Yearly	160	3	0.67
k	Preparing FC	Yearly	160	10	2.22
l	Transferring signed documents to the dispatch section	Yearly	160	3	0.67
24	Janasamparka Paripadi	Yearly	3	240	1.00
	Subtotal				523.44
	Constant allowance @ 11%				57.58
	Total work content				581.01
	Present number of Assistant Engineer				136.00
	Man-hours available per month per person				1+2=3
	Number of person required				4.27

Table No: 1.8

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN ALPPY D. OFFICE					
Department: Kerala state pollution control board		Designation: Assistant Engineer			
Section : Sample stations		Shift: General and A B shifts			
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	File processing	daily	20	3	24
2	Assisting AE in the office	daily	12	10	48
3	Consent issue order drafting	daily	5	20	40
4	Registering consent issue order	daily	5	3	6
5	Completion of effluent analysis data	daily	8	10	32
6	Assistance to EE in office activities	daily	10	10	40
7	Maintenance Sampling register	daily	10	3	12
8	assistance to AEE in office activities	daily	16	5	32
9	Attending Complaint	daily	5	10	20
10	Report preparation to RO or HO	daily	1	30	12
11	Office building maintenance, vehicle, and equipments	daily	3	20	24
12	Consent administration	daily	5	20	40
13	Consent enquiry	Weekly	15	60	60
14	Report drafting of Different monitoring works	Weekly	10	20	13.33
15	Compilation of water quality data	Weekly	12	10	8
16	Regular Maintenance of sampling record	Weekly	10	3	2
a	Registering samplings in record book	Weekly	20	3	4
b	Consent refusal	Weekly	6	7	2.8
c	Show cause notice	Weekly	8	20	10.66
d	Registering consent fee collection	Weekly	16	10	10.66
17	Inspection and sampling	Weekly	6	90	36
18	Complaint enquiry	Weekly	10	60	40
19	HRMP, PMGRC, LC reports	Monthly	4	30	2
a	Field inspection with AE/AEE	Monthly	8	90	12

b	Air quality monitoring register maintenance.	Monthly	20	3	1
20	WP (L) Report	Monthly	1	30	0.5
21	Sound monitoring	Monthly	2	180	6
22	Monthly Reports	Monthly	2	60	2
23	Periodical inspection	Monthly	6	60	6
24	Air monitoring	Yearly	2	360	1
25	CPCB Report	Yearly	6	360	3
26	Water sampling	Yearly	12	45	0.75
27	Stack monitoring	Yearly	5	120	0.83
	Subtotal				552.55
	Constant allowance @ 11%				60.78
	Total work content				613.33
	Present number of Assistant Engineer				136
	Man-hours available per month per person				4
	Number of person required				4.50

Table No: 1.9

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN IDUKKI DISTRICT OFFICE					
Department: Kerala state pollution control board			Designation: Assistant Engineer in duke		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Transparency				
a	Soft copy preparation of updated details and mailing	Daily	1	20	8.00
2	Registers Maintenance	Daily	10	3	12.00
3	Public interaction	Daily	8	7	22.40
4	Record keeping of news paper clippings	Daily	2	5	4.00
5	Consent administration				
a	Application verification	Weekly	30	3	6.00
b	File generation	Weekly	20	3	4.00
c	Verification of details	Weekly	20	10	13.33
d	Calculation adequate fee	Weekly	20	10	13.33

e	Noting observations and recommendations	Weekly	30	8	16.00
f	Field inspection	Weekly	10	60	40.00
g	Draft consent preparation	Weekly	60	20	80.00
h	File submission to the higher level	Weekly	80	3	16.00
i	Discussion at various level	Weekly	20	20	26.67
j	Preparation of fair copy of approved draft	Weekly	80	10	53.33
k	Submission of F C to higher level	Weekly	80	3	16.00
l	Transferring the signed document to the dispatch section	Weekly	80	3	16.00
6	Complaints				0.00
a	Receiving inwards	Weekly	8	3	1.60
b	File generation	Weekly	8	3	1.60
c	Noting in the file and submit to the higher level	Weekly	8	10	5.33
d	Discussions at various level	Weekly	8	20	10.67
e	Prepare FC of the approved draft	Weekly	8	10	5.33
f	Transferring the signed document to the dispatch section	Weekly	8	3	1.60
7	Duties related with court cases, appellate authority and Lok Ayuktha				0.00
a	Reception of application	Weekly	4	3	0.80
b	File generation	Weekly	4	3	0.80
c	Drafting of authorization	Weekly	4	20	5.33
d	Receipt of judgments	Weekly	4	3	0.80
e	Forwarding judgments to the concerned offices	Weekly	4	15	4.00
f	Drafting a counter report to the court	Weekly	4	40	10.67
g	Drafting a Para wise report to the Court	Weekly	4	40	10.67
h	Clarifying and counter checking the bills of advocates	Weekly	4	10	2.67
i	Drafting of proceeding of bill payment	Weekly	4	5	1.33
j	Preparation of FC of approved drafts	Weekly	4	3	0.80
8	Right to information act				0.00
a	Application receiving	Weekly	2	3	0.40
b	File generation	Weekly	2	3	0.40
c	Information collection	Weekly	2	15	2.00
d	Drafting interim or final reply to the applicant	Weekly	2	20	2.67

e	Drafting reply to the RTI general section	Weekly	2	15	2.00
f	Submitting to the higher level	Weekly	2	3	0.40
g	Preparation of FC	Weekly	2	10	1.33
h	submit to the H L	Weekly	2	3	0.40
i	Transferring to the dispatch section	Weekly	2	3	0.40
9	Regular inspections	weekly	3	40	8.00
10	Random inspections	Monthly	2	60	2.00
11	Details of the consent issued, list preparation and submission to the board meeting and review meetings	Monthly	40	5	3.33
12	Follow up activities on the reports submitted to government in legal committee	Monthly	4	30	2.00
13	Follow-up actions on the discussion of high level committee meeting	Monthly	2	30	1.00
14	Providing information to the general section dealing with assembly questions	Monthly	2	20	0.67
15	Joint inspection with other departments	Monthly	2	90	3.00
16	Registration under H W rule				0.00
a	Receiving application	Monthly	2	3	0.10
b	File generation	Monthly	2	3	0.10
c	Document verification	Monthly	2	8	0.27
d	Note the findings in the file	Monthly	2	10	0.33
e	File submission to the higher level	Monthly	2	3	0.10
f	Fair copy preparation of the approved registration	Monthly	2	10	0.33
g	Submission to the higher level	Monthly	2	3	0.10
h	Transferring the signed document to the dispatch section	Monthly	2	3	0.10
17	Hearings conducted at higher levels by Chairman MS or CEE				
a	Drafting hearing notice to the concerned	Yearly	1	20	0.03
b	Preparation of FC	Yearly	1	10	0.01
18	Sabarimala duty	Yearly	1	2520	3.50
19	Award enquiry	Yearly	1	240	0.33
20	Janasamparka Paripadi	Yearly	2	200	0.56

21	Public awareness	Yearly	3	120	0.50
22	Project related meeting	Yearly	3	60	0.25
23	Reporting to HO	Yearly	4	120	0.67
24	Equipments maintenance	Yearly	2	60	0.17
	Subtotal				448.51
	Constant allowance @ 11%				49.34
	Total work content				497.85
	Present number of Assistant Engineer				136.00
	Man-hours available per month per person				1+2=3
	Number of person required				3.

Table No: 1.10

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN KOTTAYAM DISTRICT OFFICE					
Department: Kerala state pollution control board		Designation: Assistant Engineer			
Section : Sample stations		Shift: General and A B shifts			
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Consent administration				
a	Application verification	Daily	8	3	9.6
b	File generation	Daily	8	3	9.6
c	Verification of details	Daily	8	5	16
d	Calculation adequate fee	Daily	8	10	32
e	Noting observations and recommendations	Daily	8	5	16
f	Discussion at various level	Daily	8	20	64
g	Field inspection	Daily	2	60	48
h	Preparation Verification report	Daily	5	30	60
i	Submission of F C to higher level	Daily	8	3	9.6
j	Transferring the signed document to the dispatch section	Daily	8	3	9.6
2	Complaints				
a	Receiving inwards	Daily	6	3	7.2
b	File generation	Daily	6	3	7.2
c	Drafting and typing of report (reply) to the concerned party	Daily	6	25	60

d	Noting in the file and submit to the higher level	Daily	6	5	12
e	Discussions at various level	Daily	6	20	48
f	Prepare FC of the approved draft	Daily	6	10	24
g	Transferring the signed document to the dispatch section	Daily	6	3	7.2
3	Right to information act				
a	Application receiving	Daily	2	3	2.4
b	File generation	Daily	2	3	2.4
c	Information collection	Daily	2	15	12
d	Drafting interim or final reply to the applicant	Daily	2	20	16
e	Inspection in the field	Daily	2	30	24
f	Submitting to the higher level	Daily	2	3	2.4
g	Preparation of FC and submit to the H L	Daily	2	10	8
h	Drafting letter forwarding copies to the applicant	Daily	2	8	6.4
i	Transferring signed documents to the dispatch section	Daily	2	3	2.4
4	Public interaction & phone calls	Daily	7	8	22.4
5	Sutharya Keralam complaints forwarded from HO and RO	Weekly	2	60	8
6	Review meeting	Weekly	2	20	2.66
7	Duties related with court cases, appellate authority and Lok Ayuktha				0
a	Reception of application	Weekly	6	3	1.2
b	File generation	Weekly	6	3	1.2
c	Field enquiry or sampling	Weekly	6	30	12
d	preparation of draft report	Weekly	6	20	8
e	Clarifying and counter checking the bills of advocates	Weekly	6	10	4
f	Drafting of proceeding of bill payment	Weekly	6	15	6
g	Preparation of FC of approved drafts	Weekly	6	10	4
h	Transferring the signed documents to the account section	Weekly	6	3	1.2
i	Preparation of fair copy of approve d draft	Weekly	6	5	2
j	Drafting of cheques forwarded to the advocate	Weekly	6	3	1.2

k	Transfer the signed document to the dispatch section	Weekly	6	3	1.2
8	Regular inspections and stack monitoring	Weekly	2	60	8
9	Hearing conducted	Monthly	8	60	8
10	Staff meeting	Monthly	4	60	4
11	Accidental inspection	Monthly	12	180	36
12	Public awareness	yearly	4	240	1.33
13	Joint inspection with other departments	Yearly	10	120	1.66
14	Erumely festival				0
a	Supervision	Yearly	2	2700	7.5
b	Collection of samples	Yearly	2	2700	7.5
15	Training	yearly	2	3690	10.25
	Subtotal				675.31
	Constant allowance @ 11%				74.28
	Total work content				749.60
	Present number of Assistant Engineers				136
	Man-hours available per month per person				5
	Number of person required				5.51

Table No: 1.11

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN EKM D. OFFICE- 1					
Department: Kerala state pollution control board		Designation: Assistant Engineer			
Section : Sample stations		Shift: General and A B shifts			
Sl No	Activity	Period	Frequency	Unit Time	Total Man Hours Available Per Month
1	Consent administration	Daily	20	20	160
a	Inspection in field	Weekly	12	60	48
2	Inspection in industries	Daily	2	60	48
3	Inward putting up in concerned files	Daily	5	3	6
4	Report entering in to computer	Daily	10	5	20
5	Consent or notice drafting	Daily	10	20	80
6	Fair copy preparation	Daily	4	10	16

7	Drafting consent for concerned Taluk	Daily	3	15	18
8	Entering VR reports to the computer	Daily	8	5	16
9	Register maintenance	Daily	12	5	24
10	Put up draft VR to superior officers	Weekly	4	25	6.66
11	File putting up works	Weekly	10	3	2
12	Right to information act related works	Weekly	2	30	4
13	General technical correspondence and list preparation	Monthly	5	30	2.5
14	General correspondence to CPCB	Monthly	5	25	2.08
15	Circular keeping	Monthly	6	10	1
16	Bill certification of equipments maintenances in District office 1	Monthly	10	15	2.5
17	Coordination of list prepared by GEA	Monthly	5	10	0.83
18	Maintenance of office vehicle	Monthly	2	30	1
19	Legal related works(HR,OMBUD,PETITION)	Monthly	5	30	2.5
20	Seminar workshops and awareness	Yearly	2	360	1
21	Joint inspection with other institutions	Yearly	3	120	0.5
22	Equipments maintenance	Yearly	2	30	0.08
	Subtotal				462.66
	Constant allowance @ 11%				50.89
	Total work content				513.56
	Present number of Assistant Engineers				136
	Man-hours available per month per person				3
	Number of person required				3.77

Table No: 1.12

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN EKM D. O- 2					
Department: Kerala state pollution control board			Designation: Assistant Engineer		
Section : Sample stations			Shift: General and A B shifts		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Application categorization	Daily	50	2	40
2	Put up the inward in to respective files	Daily	25	3	30
3	Put files for Consent to Establish, Operate and Renewal	Daily	20	3	24
4	Consent administration	Daily	8	20	64
5	Inspection in the field	Daily	3	60	72
6	Data entry in to computer	Daily	15	5	30
7	General File put up	Daily	25	3	30
8	Inward put ups	Daily	30	3	36
9	Consent note or Draft preparation	Daily	7	20	56
10	RTI and Other legal administration	Weekly	10	30	20
11	Complaint administration	Weekly	10	45	30
12	Meetings	Monthly	2	60	2
13	Sabarimala duty	Yearly	1	2600	3.61
14	Training	Yearly	1	3700	5.13
15	Election Duty	Yearly	1	1800	2.5
16	Data preparation under statutes	Yearly	10	80	1.11
17	Ambient air monitoring	Yearly	2	210	0.58
18	Sound level monitoring	Yearly	1	750	1.04
19	Award enquiry	Yearly	1	360	0.5
20	World environment day celebration	Yearly	1	390	0.54
21	Janasamparkka Paripadi	Yearly	1	360	0.5
22	Meetings in head office	Yearly	1	360	0.5
	Subtotal				450.02
	Constant allowance @ 11%				49.50
	Total work content				499.53
	Present number of Assistant Engineers				136
	Man-hours available per month per person				3
	Number of person required				3.67

Table No: 1.13

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN TRISSUR DISTRICT OFFICE					
Department: KSPCB			Designation: Graduate engineering Apprentice		
Section: Technical			Shift: General		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent related activities				
a	File generation - Checking documents ,attachments and fees	Daily	12	3	14.40
b	primary scrutinizing	Daily	12	5	24.00
c	clarifying the discrepancies	Daily	12	5	24.0
d	Final verification & submission to the AE	Daily	12	5	24.00
e	Scrutinizing of application		12	3	14.40
f	Application put up with old file records	Daily	12	15	72.00
g	computer data updating	Monthly	23	2	0.76
h	clarifying the discrepancies	Daily	12	5	24.00
i	Draft preparation	Daily	12	20	96.00
j	file put up	Daily	12	3	14.40
k	Inspection / Sampling/ Sound monitoring	Weekly	15	60	60.00
l	preparation of inspection report	Weekly	15	20	20.00
m	Sample hand over to lab	Weekly	15	3	3.00
q	Consent refusal intention	Monthly	1	25	0.41
r	fair copy checking	Daily	12	3	14.40
2	Registers Maintenance	Daily	3	5	6.00
3	Transparency				
a	Soft copy preparation of updated details and mailing	daily	1	30	12.00
4	Public interaction and Phone Calls	Daily	15	7	42.00
5	JSP/MSW/Joint Inspection	Weekly	3	60	12.00
6	Regular inspections	Weekly	4	60	16.00
7	Random inspections	Weekly	2	60	8.00
8	Duty in Help Desk	Weekly	2	360	48.00
9	General work				
a	List preparation (eg. Quarry details)	Monthly	2	30	1.00
10	Staff meeting	Monthly	1	30	0.50
11	Stack monitoring	Monthly	1	120	2.00
12	Monthly report				

a	Preparation of monthly report of consent issued	Monthly	1	30	0.50
13	Registration under H W rule				
a	Receiving application	Yearly	6	3	0.02
b	File generation	Yearly	6	3	0.02
c	Document verification	Yearly	6	5	0.04
d	Note the findings in the file	Yearly	6	8	0.06
e	Preparation of draft registration	Yearly	6	20	0.16
f	File submission to the higher level	Yearly	6	3	0.02
g	Fair copy preparation of the approved registration	Yearly	6	10	0.08
h	Submission to the higher level	Yearly	6	3	0.02
i	Transferring the signed document to the dispatch section	Yearly	6	3	0.02
14	Duties related with court cases, appellate authority and Lok Ayuktha				
a	Reception of application	Yearly	50	3	0.20
b	File generation	Yearly	50	3	0.20
c	Receipt of judgments	Yearly	60	15	1.25
d	Drafting a counter report to the court	Yearly	60	40	3.33
e	Preparation of FC of approved drafts	Yearly	60	10	0.83
15	Details of the consent issued, list preparation and submission to the board meeting and review meetings	Yearly	4	60	0.33
16	Providing information to the general section dealing with assembly questions	Yearly	4	30	0.16
17	Plan scheme				
a	File opening	Yearly	1	3	0.004
b	Discussion on all levels	Yearly	1	30	0.04
c	Draft proposal preparation	Yearly	1	20	0.02
d	FC of proposal preparation	Yearly	1	10	0.01
e	Follow up of past schemes	Yearly	1	60	0.08
18	Registration under battery rule	Yearly	2	40	0.11
19	Report regarding Bio-medical rule	Yearly	3	30	0.12
20	Registration under plastic rule	Yearly	7	40	0.38
21	Award enquiry	Yearly	1	360	0.50
22	Janasamparka Paripadi	Yearly	8	60	0.66
23	Public awareness	Yearly	1	360	0.50

24	Project related meeting and registers	Yearly	10	120	1.66
25	Soil mining	Yearly	34	45	2.12
26	Complaint related activities				
a	File generation - Checking documents and attachments	Yearly	282	8	3.13
c	Draft preparation & Fair copy setting	Yearly	282	25	9.79
d	Draft letter to local authority/ Complainant/ Industry	Yearly	282	20	7.83
e	Entering in to the register	Yearly	282	3	1.17
27	RTI Request				
b	Draft preparation and file put up	Yearly	160	25	5.55
28	Erumeli Festival- supervision / monitoring/ collection of samples	Yearly	1	360	0.50
29	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.				
a	Preparation of reports	Yearly	10	50	0.69
30	General report called from RO/HO				
a	Fair copy preparation and put up	Yearly	10	50	0.69
	Subtotal				596.23
	Constant allowance @ 11%				65.59
	Total work content				661.82
	Present number of Assistant Engineers				136.00
	Man-hours available per month per person				4.00
	Number of person required				4.87

Table No: 1.14

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN PALAKKAD DISTRICT OFFICE					
Department: Kerala state pollution control board			Designation: Assistant Engineer		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent administration				
a	Application verification	Daily	7	3	8.40

b	File generation	Daily	7	3	8.40
c	Verification of details	Daily	7	5	14.00
d	Field inspection	Weekly	10	60	40.00
e	Calculation adequate fee	Daily	7	10	28.00
f	Noting observations and recommendations	Daily	7	10	28.00
g	Draft consent preparation	Daily	4	20	32.00
h	File submission to the higher level	Daily	4	3	4.80
i	Discussion at various level	Daily	4	15	24.00
j	Preparation of fair copy of approved draft	Daily	4	10	16.00
k	Submission of F C to higher level	Daily	4	3	4.80
l	Transferring the signed document to the dispatch section	Daily	4	3	4.80
2	Complaints				0.00
a	Receiving inwards	Daily	5	3	6.00
b	File generation	Daily	5	3	6.00
c	Inspection and report preparation	Daily	3	40	48.00
d	Drafting and typing of report (reply) to the concerned party	Daily	5	20	40.00
e	Noting in the file and submit to the higher level	Daily	4	8	12.80
f	Discussions at various level	Daily	4	15	24.00
g	Prepare FC of the approved draft	Daily	4	10	16.00
h	Transferring the signed document to the dispatch section	Daily	4	3	4.80
3	Right to information act				0.00
a	Application receiving	Daily	4	3	4.80
b	File generation	Daily	4	3	4.80
c	Information collection	Daily	4	10	16.00
d	Drafting interim or final reply to the applicant	Daily	4	20	32.00
e	Drafting reply to the RTI general section	Daily	4	10	16.00
f	Submitting to the higher level	Daily	4	3	4.80
g	Preparation of FC and submit to the H L	Daily	4	10	16.00
h	Transferring to the dispatch section	Daily	4	3	4.80
i	Drafting letter forwarding copies to the applicant	Daily	4	2	3.20
j	Transferring signed documents to the dispatch section	Daily	4	3	4.80

4	Register maintenance	Daily	8	3	9.60
5	Public interaction	Daily	6	10	24.00
6	Water cuss report	Daily	5	10	20.00
6	Attending phone calls	Daily	20	3	24.00
7	Registration under H W rule				
a	Receiving application	Weekly	5	3	1.00
b	Document verification	Weekly	5	5	1.67
c	Note the findings in the file	Weekly	5	10	3.33
d	Fair copy preparation of the approved registration	Weekly	5	20	6.67
e	Submission to the higher level	Weekly	5	3	1.00
f	Transferring the signed document to the dispatch section	Weekly	5	3	1.00
8	Notice preparation	Weekly	2	20	2.67
9	Duties related with court cases, appellate authority and Lok Ayuktha				0.00
a	Reception of application	Weekly	2	3	0.40
b	File generation	Weekly	2	3	0.40
c	Inquiry and reporting	Weekly	2	30	4.00
d	Preparation of FC of approved drafts	Weekly	2	20	2.67
e	Drafting of cheques forwarded to the advocate	Weekly	2	3	0.40
f	Transfer the signed document to the dispatch section	Weekly	2	3	0.40
10	Registration under E waste rule	Monthly	3	40	2.00
11	Registration under battery rule	Monthly	4	40	2.67
12	Reporting on bio-medical rule	Monthly	6	60	6.00
13	Internal meetings	Monthly	1	60	1.00
14	Joint inspection	Monthly	3	120	6.00
15	Reporting to H O	Monthly	3	20	1.00
	Subtotal				599.87
	Constant allowance @ 11%				65.99
	Total work content				665.85
	Present number of Assistant Engineers				136.00
	Man-hours available per month per person				4.00
	Number of person required				4.90

Table No: 1.15

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN MALAPPURAM DISTRICT OFFICE					
Department: KSPCB			Designation: Graduate engineering Apprentice		
Section: Technical			Shift: General		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent administration				
a	Application verification	Daily	10	3	12.00
b	File generation	Daily	10	3	12.00
c	Verification of details	Daily	10	5	20.00
d	Field inspection	Weekly	8	60	32.00
e	Calculation adequate fee	Daily	10	10	40.00
f	Noting observations and recommendations	Daily	10	10	40.00
g	Discussion at various level	Daily	10	15	60.00
2	Complaint related activities				
a	File generation - Checking documents and attachments	Daily	5	8	16.00
c	Draft preparation & Fair copy setting	Daily	5	25	50.00
d	Draft letter to local authority/ Complainant/ Industry	Daily	5	20	40.00
e	Entering in to the register	Daily	5	3	6.00
3	Public interaction and Phone Calls	Daily	15	8	48.00
4	Registration under H W rule				0.00
a	Receiving application	Daily	1	3	1.20
b	File generation	Daily	1	3	1.20
c	Document verification	Daily	1	5	2.00
d	Note the findings in the file	Daily	1	8	3.20
e	Preparation of draft registration	Daily	1	20	8.00
f	File submission to the higher level	Daily	1	3	1.20
5	RTI Request	Daily	2	25	20.00
6	Duties related with court cases, appellate authority and Lok Ayuktha				0.00
a	Reception of application	Daily	3	3	3.60
b	File generation	Daily	3	3	3.60

c	Receipt of judgments	Daily	1	15	6.00
d	Drafting a counter report to the court	Daily	1	40	16.00
e	Preparation of FC of approved drafts	Daily	1	10	4.00
7	Registers Maintenance	Daily	3	5	6.00
8	Reporting to HO	Daily	1	20	8.00
9	New paper record keeping	Daily	1	10	4.00
10	Transparency				0.00
a	Soft copy preparation of updated details and mailing	daily	15	2	12.00
11	Duty in Help Desk	Weekly	2	360	48.00
12	JSP/MSW/Joint Inspection	Monthly	2	60	2.00
13	Regular inspections	Monthly	4	60	4.00
14	Random inspections	Monthly	2	60	2.00
15	Staff meeting	Monthly	4	30	2.00
16	Sutharya Keralam	Monthly	4	60	4.00
17	Details of the consent issued, list preparation and submission to the board meeting and review meetings	Monthly	1	60	1.00
18	Providing information to the general section dealing with assembly questions	Monthly	1	30	0.50
19	Monthly report				0.00
a	Preparation of monthly report of consent issued	Monthly	1	30	0.50
20	Registration under battery rule	Monthly	1	40	0.67
21	Effluent sampling	Monthly	1	180	3.00
22	District level office meetings	Monthly	2	60	2.00
23	Registration under plastic rule	Monthly	1	40	0.67
21	Award enquiry	Yearly	4	360	2.00
24	Janasamparka Paripadi	Yearly	1	60	0.08
25	Reply to audit query	Yearly	2	40	0.11
26	Public awareness	Yearly	8	360	4.00
27	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.				0.00
b	Preparation of reports	Yearly	10	50	0.69
28	General report called from RO/HO				0.00
a	Fair copy preparation and put up	Yearly	10	50	0.69

29	Building maintenance	Yearly	1	360	0.50
30	Equipments maintenance	Yearly	4	120	0.67
31	Employees trainings	Yearly	2	1800	5.00
	Subtotal				560.08
	Constant allowance @ 11%				61.61
	Total work content				621.69
	Present number of Assistant Engineers				136.00
	Man-hours available per month per person				4.00
	Number of person required				4.57

Table No: 1.16

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN KOZHIKODE DISTRICT OFFICE					
Department: KSPCB			Designation: Graduate engineering Apprentice		
Section: Technical			Shift: General		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent administration				
a	File generation - Checking documents ,attachments and fees	Daily	7	10	28.00
b	primary scrutinizing	Daily	7	5	14.00
c	Final verification by AE	Daily	7	10	28.00
d	Scrutinizing of application	Daily	7	2	5.60
e	Application put up with old file records	Daily	7	3	8.40
f	computer data updating	Daily	7	5	14.00
g	clarifying the discrepancies	Daily	7	5	14.00
h	Draft preparation	Daily	7	20	56.00
i	Finalizing the report	Daily	7	10	28.00
j	Inspection / Sampling/ Sound monitoring	Monthly	7	120	14.00
k	preparation of inspection report	Monthly	7	20	2.33
l	Sample hand over to lab	Daily	7	3	8.40
m	draft consent	Daily	5	5	10.00
n	Draft V.R	Daily	5	5	10.00
o	clarifying the discrepancies	Daily	5	5	10.00
p	Consent refusal intention	Daily	1	7	2.80
q	fair copy checking	Daily	5	5	10.00

2	Public interaction and Phone Call	Daily	2	5	48.00
3	Inward/Letters				
a	Find out the files	Daily	30	2	24.00
b	Attaching the specific letter	Daily	30	1	12.00
c	write on Note sheet	Daily	30	1	12.00
4	Details mailing to HO	Daily	1	6	2.40
5	Duty in Help Desk	Weekly	6	360	144.00
6	Complaint related activities				
a	File generation - Checking documents and attachments	Weekly	1	6	0.40
b	Entering in to the register/ Computer	Weekly	1	3	0.20
c	Draft preparation & Fair copy setting	Weekly	1	20	1.33
d	Draft letter to local authority/ Complainant/ Industry	Weekly	1	10	0.67
e	Entering in to the register	Weekly	1	3	0.20
7	RTI Request				
a	Verification/ entering in register	Monthly	5	7	0.58
b	Draft preparation and file put up	Monthly	5	20	1.67
c	Fair copy preparation and put up	Monthly	5	10	0.83
8	Monthly report				
a	Preparation of monthly report of consent issued	Monthly	1	15	0.25
9	General work				
a	List preparation (eg. Quarry details)	Monthly	1	60	1.00
10	General report called from RO/HO				0.00
a	Fair copy preparation and put up	Monthly	1	20	0.33
11	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.				
a	verification and Registration	Monthly	2	5	0.17
b	Preparation of reports	Monthly	2	20	0.67
12	Court cases /OBDN/ WPC Lok Ayuktha Cases				
a	verification of case with previous records	Yearly	5	20	0.14
b	Entering in to the register/ Computer	Yearly	5	5	0.03

c	file put up	Yearly	5	3	0.02
13	Complaints/ High court cases/ HRMP etc	Yearly	5		0.00
a	Sampling	Yearly	5	120	0.83
b	preparation of inspection report	Yearly	5	20	0.14
c	draft report	Yearly	5	20	0.14
14	Sutharya Keralam/ Complaint forwarded from head office, Regional office, District collector, ADM etc.				
a	verification of case with previous records / entering in register	Yearly	5	20	0.14
b	preparation of file	Yearly	5	3	0.02
c	data collection for reports	Yearly	5	12	0.08
d	draft report and file put up	Yearly	5	20	0.14
15	Accidental inspection				0.00
a	Sampling	Yearly	1	10	0.01
b	Prepare inspection report	Yearly	1	7	0.01
c	Verification with old records	Yearly	1	15	0.02
d	Fair copy preparation	Yearly	1	5	0.01
16	Training	Yearly	6	360	3.00
17	Hearing conducted at D.O	Yearly	4	60	0.33
18	Staff meeting	Yearly	6	30	0.25
19	Erumeli Festival- supervision / monitoring/ collection of samples	Yearly	7	360	3.50
	Subtotal				523.06
	Constant allowance @ 11%				57.54
	Total work content				580.59
	Present number of Assistant Engineers				3.00
	Man-hours available per month per person				136.00
	Number of person required				4.27

Table No: 1.17

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN WAYANAD DISTRICT OFFICE					
Department: Kerala state pollution control board			Designation: Assistant Engineer Wayanad		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent administration				
a	Application verification	Daily	10	3	12.00
b	File generation		8	3	9.60
c	Verification of details	Daily	8	5	16.00
d	Calculation adequate fee	Daily	8	5	16.00
e	Noting observations and recommendations	Daily	8	8	25.60
f	Draft consent preparation	Daily	8	20	64.00
g	File submission to the higher level	Daily	8	3	9.60
h	Discussion at various level	Daily	8	10	32.00
i	Preparation of fair copy of approve d draft	Daily	8	10	32.00
j	Submission of F C to higher level	Daily	8	3	9.60
k	Transferring the signed document to the dispatch section	Daily	8	3	9.60
2	Registration under H W rule				0.00
a	Receiving application	Daily	1	3	1.20
b	File generation	Daily	1	3	1.20
c	Document verification	Daily	1	5	2.00
d	Note the findings in the file	Daily	1	8	3.20
e	Preparation of draft registration	Daily	1	20	8.00
f	File submission to the higher level	Daily	1	3	1.20
g	Fair copy preparation of the approved registration	Daily	1	10	4.00
h	Submission to the higher level		1	3	1.20
i	Transferring the signed document to the dispatch section	Daily	1	3	1.20
3	Complaints				0.00
a	Receiving inwards	Daily	3	3	3.60
b	File generation	Daily	3	3	3.60
c	Drafting of report (reply) to the concerned party	Daily	3	25	30.00

d	typing of report (reply) to the concerned party				12.00
e	Noting in the file and submit to the higher level	Daily	3	8	9.60
f	Discussions at various level	Daily	3	10	12.00
g	Prepare FC of the approved draft	Daily	3	10	12.00
h	Transferring the signed document to the dispatch section	Daily	3	3	3.60
4	Duties related with court cases, appellate authority and Lok Ayuktha				0.00
a	Reception of application	Daily	1	3	1.20
b	File generation	Daily	1	3	1.20
c	Drafting and typing of authorization	Daily	1	20	8.00
d	Drafting a counter report to the court	Daily	1	15	6.00
e	Drafting a Para wise report to the Court	Daily	1	25	10.00
f	Clarifying and counter checking the bills of advocates	Daily	1	3	1.20
g	Preparation of FC of approved drafts	Daily	1	10	4.00
h	Transfer the signed document to the dispatch section	Daily	1	3	1.20
5	Right to information act				0.00
a	Application receiving	daily	1	3	1.20
b	File generation	daily	1	3	1.20
c	Information collection	daily	1	15	6.00
d	Drafting interim or final reply to the applicant	daily	1	20	8.00
e	Drafting reply to the RTI general section	daily	1	10	4.00
f	Submitting to the higher level	daily	1	3	1.20
g	Preparation of FC	daily	1	10	4.00
h	submit to the H L	Daily	1	3	1.20
i	Transferring to the dispatch section	daily	1	3	1.20
j	Drafting letter forwarding copies to the applicant	daily	1	10	4.00
k	Preparing FC	daily	1	5	2.00
l	Transferring signed documents to the dispatch section	daily	1	3	1.20
6	Transparency	Daily			0.00
a	Soft copy preparation of updated details and mailing	daily	1	15	6.00

7	Vehicle Maintenance and hiring	daily	1	10	4.00
8	Record keeping of news paper clippings	daily	1	10	4.00
9	Registers Maintenance	daily	1	10	4.00
10	Equipments maintenance	Weekly	1	60	4.00
11	Random inspections	Weekly	1	30	2.00
12	Meeting at Collectorate	Weekly	1	60	4.00
13	Air Quality Monitoring	Monthly	1	480	8.00
14	Building Maintenance	monthly	1	30	0.50
15	Regular inspections	monthly	12	60	12.00
a	Inspection Note preparation	monthly	12	30	6.00
b	Forwarded to higher level	monthly	12	3	0.60
16	Arranging public hearings				
a	Receiving application	yearly	2	15	0.04
b	Verifying for adequate fee and significant documents	yearly	2	20	0.06
c	Drafting letter to the district collector	yearly	2	20	0.06
d	Notice preparation	yearly	2	30	0.08
e	Publishing in media	yearly	2	60	0.17
f	Drafting letters to the concerned people	yearly	2	40	0.11
g	Preparation of FC	yearly	2	10	0.03
h	Transferring to the dispatch section	yearly	2	3	0.01
17	Details of the consent issued, list preparation and submission to the board meeting and review meetings	yearly	12	90	1.50
18	Sabarimala duty	Yearly	1	420	0.58
	Subtotal				471.33
	Constant allowance @ 11%				51.85
	Total work content				523.18
	Present number of Assistant Engineers				3.00
	Man-hours available per month per person				136.00
	Number of person required				3.85

Table No: 1.18

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN KANNUR DISTRICT OFFICE					
Department: KSPCB			Designation: Graduate engineering Apprentice		
Section: Technical			Shift: General shift		
Sl No	Activity	Period	Frequency	unit time	Total Man Hours available Per Month
1	Consent related activities				
a	File generation - Checking documents ,attachments and fees	Daily	12	3	14.40
b	primary scrutinizing	Daily	12	3	14.40
c	clarifying the discrepancies	Daily	10	5	20.00
d	Application put up with old file records	Daily	12	3	14.40
e	computer data updating	Daily	5	5	10.00
f	Draft preparation	Daily	10	20	80.00
g	Inspection / Sampling/ Sound monitoring	Weekly	6	60	24.00
h	preparation of inspection report	Weekly	6	30	12.00
i	Sample hand over to lab	Weekly	4	3	0.80
j	draft consent	Daily	7	20	56.00
k	clarifying the discrepancies	Weekly	4	3	0.80
l	Consent refusal intention	Weekly	4	7	1.87
2	Public interaction and Phone Call	Daily	12	8	38.40
3	Details mailing to HO	Daily	1	10	4.00
4	Duty in Help Desk				0.00
a	Form filling	Daily	5	3	6.00
b	Checking documents and receiving application	Daily	8	3	9.60
c	Clarification of details	Daily	5	7	14.00
5	Complaint related activities				
a	File generation - Checking documents and attachments	Weekly	4	3	0.80
b	Entering in to the register/ Computer	Weekly	4	3	0.80
c	Draft preparation & Fair copy setting	Weekly	4	20	5.33
d	Draft letter to local authority/ Complainant/ Industry	Weekly	4	10	2.67

e	Entering in to the register	Weekly	4	3	0.80
6	Registration under H W rule				0.00
a	Receiving application	Weekly	3	3	0.60
b	File generation	Weekly	3	3	0.60
c	Document verification	Weekly	3	5	1.00
d	Note the findings in the file	Weekly	3	5	1.00
e	Preparation of draft registration	Weekly	3	20	4.00
f	File submission to the higher level	Weekly	3	3	0.60
g	Fair copy preparation of the approved registration	Weekly	3	10	2.00
h	Submission to the higher level	Weekly	3	3	0.60
i	Transferring the signed document to the dispatch section	Weekly	3	3	0.60
7	General report called from RO/HO				0.00
a	Fair copy preparation and put up	Weekly	2	20	2.67
8	Court cases /OBDN/ WPC Lok Ayuktha Cases				
a	verification of case with previous records	Monthly	8	15	2.00
b	Drafting a counter report to the court	Monthly	3	20	1.00
c	Drafting a Para wise report to the Court	Monthly	3	30	1.50
d	Preparation of FC of approved drafts	Monthly	3	10	0.50
e	Entering in to the register/ Computer	Monthly	6	3	0.30
f	file put up	Monthly	3	3	0.15
g	Transfer the signed document to the dispatch section		3	3	0.15
9	Complaints/ High court cases/ HRMP etc				0.00
a	Sampling	Monthly	5	60	5.00
b	preparation of inspection report	Monthly	3	30	1.50
c	draft report	Monthly	3	10	0.50
10	RTI Request				0.00
a	Application receiving	Monthly	13	3	0.65
b	File generation	Monthly	13	3	0.65
c	Information collection	Monthly	10	10	1.67
d	Drafting interim or final reply to the applicant	Monthly	10	10	1.67

e	Drafting reply to the RTI general section	Monthly	13	10	2.17
f	Submitting to the higher level	Monthly	10	3	0.50
g	Preparation of FC	Monthly	10	7	1.17
h	submit to the HL	Monthly	10	3	0.50
i	Drafting letter forwarding copies to the applicant	Monthly	10	10	1.67
j	Preparing FC	Monthly	13	5	1.08
k	Transferring signed documents to the dispatch section	Monthly	10	3	0.50
11	Legislative Committee/ Rajya Sabha/ Lok Sabha/ Parliamentary questions/ Assembly questions	Monthly			0.00
a	Verification/ entering in register	Monthly	1	3	0.05
b	preparation of file	Monthly	1	3	0.05
c	data collection for reports	Monthly	1	15	0.25
d	draft report and file put up	Monthly	1	10	0.17
12	General work				0.00
a	List preparation (eg. Quarry details)	Monthly	5	20	1.67
13	JSP/MSW/Joint Inspection	Monthly	3	90	4.50
14	Monthly report	Monthly			0.00
a	Preparation of monthly report of consent issued	Monthly	2	30	1.00
15	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.				0.00
a	verification and Registration	Monthly	1	5	0.08
b	Preparation of reports	Monthly	1	20	0.33
16	Staff meeting	Monthly	1	60	1.00
17	Stack monitoring	Monthly	2	90	3.00
18	Sutharya Keralam/ Complaint forwarded from head office, Regional office, District collector, ADM etc.				0.00
a	verification of case with previous records / entering in register	Monthly	1	20	0.33
b	preparation of file	Monthly	1	3	0.05
c	data collection for reports	Monthly	1	15	0.25
d	draft report and file put up	Monthly	1	10	0.17

19	Accidental inspection		1		
a	Sampling	Yearly	1	120	0.17
b	Prepare inspection report	Yearly	1	30	0.04
c	Verification with old records	Yearly	1	15	0.02
d	Fair copy preparation	Yearly	1	10	0.01
20	Training	Yearly	1	300	0.42
21	Hearing conducted at D.O	Yearly	1	240	0.33
	Subtotal				383.44
	Constant allowance @ 11%				42.18
	Total work content				425.62
	Present number of Assistant Engineers				2
	Man-hours available per month per person				136.00
	Number of person required				3.13

Table No: 1.19

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN KASARAGOD DISTRICT OFFICE					
Department: Kerala state pollution control board			Designation: Assistant Engineer in Kasaragod		
Section : Sample stations			Shift: General shifts		
Sl No	Activity	Period	Frequency	Unit time	Total Man hours available per person
1	Transparency				
a	Soft copy preparation of updated details and mailing	daily	1	15	6.00
2	Public interaction	daily	6	7	16.80
3	Registers Maintenance	daily	9	3	10.80
4	Consent administration				
a	Application verification	Weekly	18	3	3.60
b	File generation	Weekly	18	3	3.60
c	Verification of details	Weekly	18	8	9.60
d	Calculation adequate fee	Weekly	18	5	6.00
e	Noting observations and recommendations	Weekly	18	8	9.60
f	Calling for clarification	Weekly	18	3	3.60
g	receiving clarifications and verification	Weekly	18	10	12.00

h	Conducting Inspection	Weekly	18	60	72.00
i	Verification of ETP and collection of sample	Weekly	18	30	36.00
j	sample hand over to Lab	Weekly	18	2	2.40
k	Preparing inspection report	Weekly	18	20	24.00
l	Submission of Inspection report to High level	Weekly	18	3	3.60
m	Draft consent/refusal preparation	Weekly	18	20	24.00
n	File submission to the higher level	Weekly	18	3	3.60
o	Discussion at various level	Weekly	18	15	18.00
p	Preparation of fair copy of approved draft	Weekly	18	10	12.00
q	Submission of F C to higher level	Weekly	18	3	3.60
r	Transferring the signed document to the dispatch section	Weekly	18	3	3.60
5	Registration under H W rule				0.00
a	Receiving application	Weekly	2	3	0.40
b	File generation	Weekly	2	3	0.40
c	Document verification	Weekly	2	25	3.33
d	Note the findings in the file	Weekly	2	8	1.06
e	Calling for clarification	Weekly	2	5	0.66
f	Conducting Inspection	Weekly	2	80	10.66
g	Preparing inspection report	Weekly	2	20	2.66
h	Submission of Inspection report to Higher Authority	Weekly	2	3	0.40
i	Preparation of draft V.R	Weekly	2	15	2.00
j	File submission to the higher level	Weekly	2	3	0.40
k	Fair copy preparation of the approved V.R	Weekly	2	10	1.33
l	Submission to the higher level	Weekly	2	3	0.40
m	Transferring the signed document to the dispatch section	Weekly	2	3	0.40
6	Complaints				0.00
a	Receiving inwards	Weekly	8	3	1.60
b	File generation	Weekly	8	3	1.60
c	Forwarding copy of complaints to Panchayath and concerned officers	Weekly	6	5	2.00
d	Follow up works with Panchayath	Weekly	6	10	4.00
e	Submission of Received inward from panchayath to higher level	Weekly	6	10	4.00

f	Drafting and typing of report (reply) to the concerned party	Weekly	6	20	8.00
g	Transferring the signed document to the dispatch section	Weekly	6	3	1.20
h	Conducting Inspection	Weekly	6	60	24.00
i	Preparing inspection report	Weekly	6	20	8.00
j	Submission of Inspection report to Higher Authority	Weekly	6	3	1.20
k	Discussions at various level	Weekly	6	15	6.00
l	Drafting and typing of report (reply) to the concerned party	Weekly	6	20	8.00
m	Prepare FC of the approved draft	Weekly	6	10	4.00
n	Transferring the signed document to the dispatch section	Weekly	6	3	1.20
7	Reporting to HO	weekly	1	25	1.66
8	Regular inspections	Weekly	3	30	6.00
9	Random inspections	Weekly	3	40	8.00
10	Right to information act				0.00
a	Application receiving	Weekly	7	30	14.00
b	File generation	Weekly	7	10	4.66
c	Information collection	Weekly	7	15	7.00
d	Drafting interim or final reply to the applicant	Weekly	7	15	7.00
e	Drafting reply	Weekly	7	30	14.00
f	Submitting to the higher level	Weekly	7	10	4.66
g	Preparation of FC	Weekly	7	17	7.93
h	submit to the H L	Weekly	7	3	1.40
i	Transferring to the dispatch section	Weekly	7	10	4.66
11	Duties related with court cases, appellate authority and Lok Ayuktha				
a	Reception of application	Monthly	2	3	0.10
b	File generation	Monthly	2	3	0.10
c	Receipt of judgments	Monthly	2	15	0.50
d	Entering and submission to higher level	Monthly	2	15	0.50
e	Conducting Inspection	Monthly	2	60	2.00
f	Preparing inspection report	Monthly	2	20	0.66
g	Submission of Inspection report to Higher Authority	Monthly	2	3	0.10

h	Drafting a Para wise comments and grounds	Monthly	2	30	1.00
i	Preparation of FC of approved drafts	Monthly	2	10	0.33
j	Transferring the signed documents to the dispatch section	Monthly	2	3	0.10
12	Registration under E Waste rule		2		0.00
a	Follow up works with Panchayath	Monthly	2	40	1.33
13	Registration under battery rule	monthly	2		0.00
a	Receiving application	monthly	2	3	0.10
b	File generation	monthly	2	3	0.10
c	Document verification	monthly	2	10	0.33
d	Note the findings in the file	monthly	2	8	0.26
e	Calling for clarification	monthly	2	10	0.33
f	Conducting Inspection	monthly	2	60	2.00
g	Preparing inspection report	monthly	2	20	0.66
h	Submission of Inspection report to Higher Authority	monthly	2	3	0.10
i	Preparation of draft V.R	monthly	2	20	0.66
j	File submission to the higher level	monthly	2	3	0.10
k	Fair copy preparation of the approved V.R	monthly	2	15	0.50
l	Submission to the higher level	monthly	2	3	0.10
m	Transferring the signed document to the dispatch section	monthly	2	3	0.10
n	collecting half yearly reports	monthly	2	40	1.33
o	compiling half yearly reports	monthly	2	40	1.33
14	Record keeping of news paper clippings	Monthly	10	10	1.66
15	Municipal Solid Waste Management				
a	correspondence with municipality coming under the purview of the Board	Monthly	3	25	1.25
16	Building Maintenance	monthly	1	25	0.41
17	Registration under plastic rule				
a	Follow up works with Panchayath	monthly	1	25	0.41
b	checking and verifying of disposal of BMW in hospitals	monthly	8	60	8.00
c	correspondence with hospitals regarding compliance of rules	monthly	10	15	2.50

18	Details of the consent issued, list preparation and submission to the board meeting and review meetings	Monthly	1	60	1.00
19	Follow up activities on the reports submitted to government in legal committee	Monthly	3	30	1.50
20	Providing information to the general section dealing with assembly questions	Monthly	3	40	2.00
21	Hearings conducted at higher from D.O				0.00
a	Drafting hearing notice to the concerned	Monthly	1	20	0.33
b	Preparation of FC	Monthly	1	10	0.16
c	Transferring signed documents to the dispatch section	Monthly	1	3	0.05
d	Intimating concerned people over phone	Monthly	1	25	0.41
e	Recording the minutes of hearing Drafting the minutes and submitting	Monthly	1	60	1.00
f	Preparation of FC	Monthly	1	7	0.11
g	transfer to the dispatch	Monthly	1	3	0.05
g	Follow up the decisions made and the actions taken	Monthly	1	25	0.41
22	Reply to the audit Query				
a	Drafting	Yearly	1	60	0.08
b	Preparation of FC	Yearly	1	15	0.02
c	Transferring the concerned general section	Yearly	1	3	0.00
23	Arranging public hearings		1		0.00
a	Receiving application	Yearly	1	3	0.00
b	Verifying for adequate fee and significant documents		1	5	0.007
c	Drafting letter to the district collector	Yearly	1	15	0.02
d	Notice preparation	Yearly	1	15	0.02
e	Publishing in media	Yearly	1	10	0.01
f	Drafting letters to the concerned people	Yearly	1	10	0.01
g	Drafting Proceedings regarding to cash release	Yearly	1	15	0.02

h	Preparation of FC	Yearly	1	10	0.01
i	Transferring the FC to the dispatch	Yearly	1	3	0.004
j	conducting hearing	Yearly	1	300	0.41
k	preparing of minutes	Yearly	1	120	0.16
l	Drafting covering letters and forward minutes to the HO	Yearly	1	60	0.08
m	Preparation of FC	Yearly	1	15	0.02
n	Transfer to the dispatch section	Yearly	1	3	0.004
24	Plan scheme				
a	File opening	Yearly	1	10	0.01
b	Discussion on all levels	Yearly	1	30	0.04
c	Draft proposal preparation	Yearly	1	20	0.02
d	FC of proposal preparation	Yearly	1	10	0.01
e	Submission to Govt. for additional grant	Yearly	1	25	0.03
f	Follow up of past schemes	Yearly	1	60	0.08
25	Joint inspection with other departments	Yearly	8	120	1.33
26	Sabarimala duty	Yearly	1	2520	3.50
27	Award				
a	forwarding of application to the units	Yearly	10	25	0.34
b	preliminary enquiry	Yearly	10	90	1.25
c	final enquiry inquiry with award committee	Yearly	5	90	0.62
28	Janasamparka Paripadi				
a	Application receiving	Yearly	5	3	0.02
b	File opening	Yearly	5	3	0.02
c	Conducting Inspection	Yearly	5	60	0.41
d	Preparing inspection report	Yearly	5	20	0.13
e	Submission of Inspection report to High level	Yearly	5	3	0.02
f	Discussions at various level	Yearly	5	20	0.13
g	Drafting of report (reply) to the concerned party	Yearly	5	20	0.13
h	typing of report (reply) to the concerned party	Yearly	5	5	0.03
i	Prepare FC of the approved draft	Yearly	5	10	0.06
j	Transferring the signed document to the dispatch section	Yearly	5	3	0.02

k	follow up works with unit complainant and higher authority	Yearly	5	20	0.13
29	Equipments maintenance	yearly	1	40	0.05
	Subtotal				509.80
	Constant allowance @ 11%				56.07
	Total work content				565.88
	Present number of Assistant Engineers				136.00
	Man-hours available per month per person				1+2=3
	Number of person required				4.16

Table No: 1.20

WORK MEASUREMENT SHEET OF ASSISTANT ENGINEERS IN SURVEILLANCE CENTRE EKM					
Department: Kerala state pollution control board		Designation: Assistant Engineer			
Section : Sample stations		Shift: General Shift			
Sl No	Activity	Period	frequency	unit time	Total man hours per month in minutes
1	River sampling	Daily	6	40	96
2	Environmental surveillance	Daily	5	40	80
3	Assistance in administration works	Daily	10	10	40
4	Top water sampling	Weekly	3	25	5
5	Attending complaints from public	Weekly	20	40	53.33
6	Complaint enquiry	Monthly	16	45	12
7	Industrial sampling	Monthly	76	40	50.66
8	Consent administration	Monthly	40	30	20
9	Consent enquiry	Monthly	25	10	4.16
a	Inspection for consent administration	Monthly	15	50	12.5
10	Compilation of effluent quality and analysis data	Monthly	40	20	13.33
11	Verification if invoices of different sampling and analysis charges	Monthly	40	10	6.66

12	Enquiries as per directions from Lok Ayuktha, Human rights commission, Ombudsman.	Monthly	5	40	3.33
13	Preparation of reports to Lok Ayuktha, Human rights commission, Ombudsman.	Monthly	5	40	3.33
14	Preparation of monthly progress reports	Monthly	1	60	1
15	Preparing reports to HO and RO	Monthly	15	30	7.5
16	Preparing reports of biomedical waste rule	Yearly	10	120	1.66
17	Preparing reports of municipal solid waste	Yearly	10	120	1.66
18	Preparing reports of hazardous waste rules	Yearly	20	120	3.33
19	Completion of Bio medical waste rules activities	Yearly	10	60	0.83
20	Completion of municipal solid waste rules activities	Yearly	10	60	0.83
21	Completion of Hazardous water rule activities	Yearly	10	60	0.83
22	Preparing reports regarding Lok Sabha, Rajya Sabha, Legislative Assembly etc	Yearly	15	45	0.93
23	Preparation of various annual reports	Yearly	6	120	1
24	Stack monitoring	Yearly	20	120	3.33
25	Compilation of stack monitoring data	Yearly	20	40	1.11
	Subtotal				424.38
	Constant allowance @ 11%				46.68
	Total work content				471.06
	present number of Assistant Engineers				3
	Standard working hours				136
	Number of person required				3.46

WORK MEASUREMENT TABLES OF
ASSISTANT ENGINEERS
AFTER RE- DEPLOYMENT

From: - Table No: 1.21

To: - Table No: 1.41

Table N: 1.21

RE-DEPLOYMENT OF DUTIES IN HEAD OFFICE				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1)	Consent administration			
a	Receiving of Application and VR		1.830	
b	File generation		1.830	
c	Verification of details	3.060		
d	Noting observations and recommendation on VR	6.110		
e	Draft consent preparation	12.220		
f	Forwarding file to the higher level	1.830		
g	Discussion at various level	12.220		
h	Preparation of fair copy of approve d draft			12.220
i	preparation and submission of F C to higher level	7.940		
j	Transferring the signed document to the dispatch section		1.830	
2)	Registration under H W rule			
a	Receiving application		0.200	
b	File generation		0.200	
c	Document verification		0.340	
d	Note the findings in the file	0.340		
e	Preparation of draft registration	1.360		
f	File submission to the higher level	0.200		
g	Fair copy preparation of the approved registration			0.680
h	Submission to the higher level	0.200		
i	Transferring the signed document to the dispatch section		0.200	
3)	Complaints / representation regarding norms			
a	Receiving inwards		7.560	
b	File generation		11.330	
c	Forwarding copy of complaints to offices concerned (RO, DO)	37.780		
d	Follow up with RO' / DO's	94.440		
e	Receiving inspection reports from offices concerned	94.440		
g	Drafting the reply	113.330		

h	Typing the reply			37.780
i	Put up the file to higher level	30.220		
j	Discussions at various level	75.560		
k	Prepare FC of the approved draft			37.780
m	Transferring the signed document to the dispatch section	11.330		
4)	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of notice		5.080	
b	File generation		7.630	
c	Drafting authorization	43.210		
d	typing of authorization			20.330
e	Receipt of judgments	5.080		
f	Verification of Judgments	38.130		
g	Forwarding judgments to the concerned offices	5.080		
h	Drafting a counter report to the court	50.830		
i	Drafting a Para wise report to the Court	101.670		
j	Forwarding the draft to higher level	12.710		
k	Clarifying and counter checking the bills of advocates		12.710	
l	Drafting of proceeding of bill payment		7.630	
m	Preparation of FC of approved drafts			25.420
n	Transferring the signed documents to the account section		5.080	
o	Receiving of cheques		5.080	
p	Preparation of fair copy of approved draft		25.420	
q	Drafting of cheques forwarded to the advocate		7.630	
r	Transfer the signed document to the dispatch section		5.080	
5)	Right to information act General / Appeal			
a	Application receiving		2.090	
b	File generation		2.090	
c	Information collection	20.880		
d	Drafting interim or final reply to the applicant	6.960		
e	Drafting reply to the RTI general section	6.960		
f	Submitting to the higher level	1.390		
g	Preparation of FC of reply			6.960

h	Submit to the H L	3.480		
i	Transferring to the dispatch section		2.090	
j	Drafting letter forwarding copies to the applicant	2.090		
k	Preparing FC of letter			6.960
l	Transferring signed documents to the dispatch section		2.090	
6)	Hearings conducted at higher levels by Chairman MS or CEE			
a	Drafting hearing notice to the concerned party	4.720		
b	Preparation of FC- Hearing notice			2.360
c	Transferring signed documents to the dispatch section		0.470	
d	Intimating concerned people over phone		0.470	
e	Recording the minutes of hearing Drafting the minutes and submitting	5.900		
f	Preparation of FC- Minutes			2.360
g	Transfer the FC dispatch	2.360		
h	Follow up the decisions made and the actions taken		1.180	
7)	Reply to the audit Query			
a	Drafting	1.220		
b	Preparation of FC			0.610
c	Transferring the concerned general section		0.120	
8)	Arranging public hearings			
a	Receiving application		0.020	
b	Verifying for adequate fee and significant documents		0.100	
c	Drafting letter to the district collector	0.190		
d	Notice preparation	0.100		
e	Publishing in media		0.100	
f	Drafting letters to the concerned people	0.190		
g	Drafting letters to MoEF	0.100		
h	Preparation of FC letters to MoEF			0.100
i	Transferring to the dispatch section		0.020	
j	Drafting letters to the concerned district office	0.100		
k	Drafting Proceedings regarding to cash release		0.100	

l	Preparation of FC- letters to Dos			0.100
m	Transferring the FC to the dispatch		0.020	
n	Receiving of minutes verification	0.020		
o	Drafting covering letters and forward minutes to the MOEF	0.100		
p	Preparation of FC- Covering letter			0.050
q	Transfer to the dispatch section		0.020	
9)	Transparency			
a	Soft copy preparation of updated details and mailing	40.000		
10)	Clarification to the concerned district office with respect to the consent application consent and issue of reminders			
a	Drafting	5.560		
b	preparation of FC			2.780
c	Transferring to dispatch section		0.830	
11)	Arranging board meeting			
a	Agenda preparation	0.170		
b	Drafting intimation letter		0.040	
c	Drafting letter for hall arrangement		0.040	
d	FC to dispatch		0.040	
e	Forwarding agenda to board members		0.040	
f	Draft FC of proceeding in advance to the BM		0.080	
g	Physical verification of venue	0.250		
h	Transportation and accommodation arrangements		0.170	
i	Bill settling		0.080	
j	Dictation of minutes	0.250		
k	FC of minutes preparation			0.080
l	Forwarding of minutes		0.040	
12)	Plan scheme			
a	File opening		0.290	
b	Discussion on all levels	0.970		
c	Draft proposal preparation	1.940		
d	FC of proposal preparation			0.970
e	Letters to all District and Regional offices for proposal submission	0.490		
f	Meeting with all DO s	1.460		
g	Follow up with Dos		0.490	
h	Processing of received proposals	0.490		

i	Ground work for the Issuing of technical sanction	0.490		
j	Processing administrative sanction from Govt.	0.490		
k	Draft administrative sanction from board		0.490	
l	Follow up at various levels		1.460	
m	Meeting with outside agency	0.490		
n	Proceedings arrangements, draft preparation and bill settlement		0.490	
o	Submission to Govt. departments	1.460		
p	Draft and FC of annual board report	0.490		
q	Submission to Govt. for additional grant	0.150		
r	Follow up of past schemes	1.220		
13)	Details of the consent issued, list preparation and submission to the board meeting and review meetings	0.670		
14)	Follow-up activities on the reports submitted to government in legal committee	0.310		
15)	Follow up actions on the discussion of higher level committee meeting	0.310		
16)	Providing information to the general section dealing with assembly questions	5.030		
17)	Registration under E Waste rule	0.670		
18)	Registration under battery rule	0.670		
19)	Vehicle Maintenance and hiring		1.000	
20)	Reporting regarding bio medical rule	3.000		
21)	Registers Maintenance	14.000		
22)	Award enquiry	0.170		
23)	Public awareness	3.000		
24)	Public interaction	16.000		
25)	Project related meeting and registers	8.330		
26)	Building Maintenance		0.500	
27)	Legislative committee reports	48.000		
28)	Equipments maintenance		0.500	
29)	Public accounts committee reports	0.420		
30)	RTI annual report	37.780		
Total Man-hours Per Month		1010.780	124.220	157.540
Constant allowances@11%		111.186	13.664	17.329
Total work content		1121.966	137.884	174.869

Table No: 1.22

RE-DEPLOYMENT OF DUTIES IN REGIONAL OFFICE, THIRUVANANTHAPURAM				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Consent administration			
a	Application verification		6	
b	File generation		6	
c	Verification of details		10	
d	Calculation adequate fee		20	
e	Noting observations and recommendations	10		
f	Draft consent preparation	16		
g	Discussion at various level	60		
h	Field inspection	180		
i	Preparation of fair copy of approved draft			20
j	Submission of F C to higher level	6		
k	Transferring the signed document to the dispatch section		6	
2	Transparency			
a	Soft copy preparation of updated details and mailing	12		
3	Registers Maintenance	30		
4	Complaints			
a	Receiving inwards	0.6		
b	File generation		0.6	
c	Forwarding copy of complaints to DO and concerned officers		0.6	
d	Follow up works with DO's		2	
e	Receiving inspection reports from Dos		0.6	
f	Drafting and typing of report (reply) to the concerned party	9		
g	Noting in the file and submit to the higher level	1.6		
h	Discussions at various level	4		
i	Prepare FC of the approved draft			2
j	Transferring the signed document to the dispatch section		0.6	
5	Training to officers			
a	Draft nomination and proceeding preparation	10		

b	Submission to higher level and follow up	5		
c	Preparation of FC and to dispatch			4.33
6	Right to information act			
a	Application receiving		0.6	
b	File generation		0.6	
c	Information collection	6		
d	Drafting interim or final reply to the applicant	6		
e	Drafting reply to the RTI general section	3		
f	Submitting to the higher level	0.6		
g	Preparation of FC and submit to the H L			2.6
h	Transferring to the dispatch section		0.6	
i	Drafting letter forwarding copies to the applicant	3		
j	Preparing FC			2
k	Transferring signed documents to the dispatch section		0.6	
7	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of application		0.25	
b	File generation		0.25	
c	Drafting and typing of authorization	1.67		
d	Receipt of judgments	0.83		
e	Forwarding judgments to the concerned offices		1.25	
f	Drafting a counter report to the court	2.5		
g	Drafting a Para wise report to the Court	3.33		
h	Clarifying and counter checking the bills of advocates		1.25	
i	Drafting of proceeding of bill payment	1.25		
j	Preparation of FC of approved drafts			0.833
k	Transferring the signed documents to the account section		0.25	
l	Receiving of cheques		0.25	
m	Preparation of fair copy of approved draft			0.833
n	Drafting of cheques forwarded to the advocate	0.83		
o	Transfer the signed document to the dispatch section		0.25	

8	Hearings conducted at higher levels by Chairman MS or CEE			
a	Drafting hearing notice to the concerned	0.67		
b	Preparation of FC			0.33
c	Transferring signed documents to the dispatch section		0.1	
d	Recording the minutes of hearing Drafting the minutes and submitting	1.33		
e	Preparation of FC and transfer to the dispatch			0.5
f	Follow up the decisions made and the actions taken	0.33		
9	Reply to the audit Query	3		
10	Clarification to the concerned district office with respect to the consent application consent and issue of reminders			
a	Drafting	3.33		
b	preparation of FC			1.67
c	Transferring to dispatch section		0.5	
11	Sabarimala duty			
a	Preliminary meetings	0.56		
b	Minutes preparation	0.28		
c	Proceedings preparation and approval	0.83		
d	Duty schedule preparation	0.33		
Total Man-hours Per Month		383.87	59.15	35.10
Constant allowances@11%		42.23	6.51	3.86
Total work content		426.10	65.66	38.96

Table No: 1.23

RE-DEPLOYMENT OF DUTIES IN REGIONAL OFFICE, ERNAKULAM				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Maintenance of equipments	20.00		
2	Record keeping of news paper clippings		4.00	
3	Maintenance of online air monitoring stations	16.00		
4	General technical files	48.00		
5	Haring of vehicle, log book management and bill verification		64.00	

6	Field inspection	56.00		
7	Consent administration	40.00		
8	Consent administration of ESC Eloor	6.00		
9	Consent administration in Kottayam district	4.00		
10	Correspondence with customs authorities	3.33		
11	Plan scheme project works	3.00		
12	Municipal solid waste file administration	4.00		
13	Co-ordination of meetings	13.33		
14	Office library maintenance		2.00	
15	Random inspection in industries	4.00		
16	Monthly river monitoring	4.00		
17	periodical report to HO	5.00		
18	Registration under plastic waste rule	1.33		
19	Meeting of Ernakulam district Environment committee	3.33		
20	Registration under E waste rule	2.67		
21	Registration under battery rules	1.33		
22	Implementation of Municipal Solid Waste rules	6.67		
Total Man-hours Per Month		242.00	70.00	0.00
Constant allowances@11%		26.62	7.70	0.00
Total work content		268.62	77.70	0.00

Table No: 1.24

RE-DEPLOYMENT OF DUTIES IN REGIONAL OFFICE, KOZHIKODE				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Technical screening of files from DO's	64		
2	Technical screening of files and classification of inwards	40		
3	Complaint verification	12		
4	Technical letter drafting to Do's	56		

5	Consent administration	72		
6	Works related with miscellaneous letters received	20		
7	Putting up of files		12	
8	Entering VR to the registers(received from DO)		30	
9	Putting up and writing VR files	60		
10	Typing draft consents			40
11	Typing notices			40
12	Fair copy preparation of consent order			12
13	Proof reading of typed letters (of typist)	20		
14	Making Fair copy of letters to SEE's			12
15	Right to information act related works	4		
16	Municipal solid waste	8		
17	Urgent reports HO and RO	6.66		
18	Preparing pending list		5	
19	Program report preparation to HO	0.5		
20	Inspection to industries	7.5		
21	Plan scheme project	0.25		
Total Man-hours Per Month		370.91	47.00	104.00
Constant allowances@11%		40.80	5.17	11.44
Total work content		411.71	52.17	115.44

Table No: 1.25

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE, THIRUVANANTHAPURAM				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Public interaction and Phone Call	60		
2	General report called from RO/HO			
a	draft preparation of report	8		
b	Fair copy preparation and put up			2
3	Consent administration			
a	File generation - Checking documents ,attachments and fees		41.67	

b	primary scrutinizing		10	
c	clarifying the discrepancies		10	
d	Final verification by AE	20		
e	Scrutinizing of application	4		
f	Application put up with old file records	10		
g	computer data updating			10
h	clarifying the discrepancies	10		
i	Draft preparation	60		
j	Finalizing the report	18.33		
k	Inspection / Sampling/ Sound monitoring	140		
l	preparation of inspection report	21.67		
m	Sample hand over to lab	7.35		
n	draft consent	7.92		
o	Draft V.R	4.58		
p	clarifying the discrepancies	3.5		
q	Consent refusal intention	0.23		
r	fair copy checking	19.67		
4	Complaint related activities			
a	File generation - Checking documents and attachments	7.5		
b	Entering in to the register/ Computer	2.8		
c	Draft preparation	13.75		
d	Fair copy setting			4.58
e	Draft letter to local authority/ Complainant/ Industry	3.33		
f	Entering in to the register		2.75	
5	RTI Request			
a	Verification / entering in register	2.1		
c	Draft preparation and file put up	7		
d	Fair copy preparation			3.5
6	Court cases /OBDN/ WPC Lok Ayuktha Cases			
a	verification of case with previous records	3.33		
b	Entering in to the register/ Computer		0.83	
c	file put up	0.5		
7	Complaints/ High court cases/ HRMP etc			
a	Sampling	10		
b	preparation of inspection report	0.5		
c	draft report	1		

7	General work			
a	List preparation (eg. Quarry details)		10.83	
b	verification of list	2.17		
8	Joint inspection	10		
9	Hearing conducted at D.O	6		
10	Staff meeting	10		
11	Stack monitoring	9		
12	Report called from , District collector, Board meeting, Review meeting etc.			
a	verification and registration	1		
b	Preparation of reports	8		
13	Regular/Random inspections	30		
14	Details mailing to HO	7.5		
15	Monthly report			
a	Preparation of monthly report of consent issued	0.33		
16	Sutharya Keralam/ Complaint forwarded from head office, Regional office, District collector, ADM etc.			
a	verification of case with previous records / entering in register	0.08		
b	preparation of file		0.01	
c	data collection for reports	0.06		
d	draft report and file put up	0.08		
17	Registration under plastic rule	0.11		
18	Providing information to the general section dealing with assembly questions	0.06		
19	Details of the consent issued, list preparation and submission to the board meeting and review meetings	0.04		
20	Reply to audit query	0.06		
21	General report to HO	0.78		
Sub Total		532.32	76.09	20.08
Constant Allowances		58.56	8.37	2.21
Total Work Content		590.88	84.46	22.29

Table No: 1.26

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE KOLLAM				
SL NO	JOB DESCRIPTION	Total Man Hours per Month		
		AE	ASSISTANT	TYPIST
1	Consent related activities			
a	File generation - Checking documents ,attachments and fees		9.6	
b	primary scrutinizing		16	
c	clarifying the discrepancies		16	
d	Final verification & submit to the AE		9.6	
e	Application put up with old file records	48		
f	computer data updating			16
g	Draft preparation	64		
h	Inspection or Sampling	40		
i	preparation of inspection report	20		
j	Sample hand over to lab	3.33		
k	Draft V.R	64		
l	clarifying the discrepancies	32		
m	Consent refusal intention	0.25		
n	fair copy checking	32		
2	Reporting to HO	6		
3	Complaint related activities			
a	File generation - Checking documents and attachments		3.6	
b	Entering in to the register/ Computer	12		
c	Draft preparation & Fair copy setting	24		
d	Draft letter to local authority/ Complainant/ Industry	24		
e	Entering in to the register	6		
4	Public interaction and Phone Calls	20		
5	RTI Request			
a	Fair copy preparation and put up	8		
6	Complaints/ High court cases/ HRMP etc			
a	preparation of inspection report	5.33		
7	Legislative Committee/ Rajya Sabha/ Lok Sabha/ Parliamentary questions/ Assembly questions			
a	Verification/ entering in register		0.2	
b	data collection for reports	1.67		
c	draft report and file put up	1.67		
8	Regular inspections	2.67		
9	Random inspections	4		
10	Public interaction	0.47		
11	Registration under H W rule			
a	Receiving application		0.6	
b	File generation		0.6	
c	Document verification		1	

d	Note the findings in the file	1.6		
e	Preparation of draft registration	4		
f	File submission to the higher level	0.6		
g	Fair copy preparation of the approved registration			2
h	Submission to the higher level	0.6		
i	Transferring the signed document to the dispatch section	0.6		
12	Accidental inspection			
a	inspection	6		
b	Fair copy preparation			2
13	General work			
a	List preparation (eg. Quarry details)	2.67		
14	General report called from RO/HO			
a	Fair copy preparation and put up	4		
15	Report regarding bio medical rule	0.5		
16	Joint inspection with other departments	1.5		
17	Award enquiry	0.5		
18	Janasamparkka Paripadi	0.5		
19	Public awareness	0.5		
20	Equipments maintenance		1	
Sub Total		442.96	58.20	20.00
Constant Allowances		48.73	6.40	2.20
Total Work Content		491.69	64.60	22.20

Table No: 1.27

RE-ALLOCATION OF DUTIES IN DISTRICT OFFICE, PATHANAMTHITTA				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
l	Consent administration			
a	Application verification		14.40	
b	File generation		12.00	
c	Verification of details		16.00	
d	Calculation adequate fee		40.00	
e	Noting observations and recommendations	38.40		
f	Draft consent preparation	56.00		
g	File submission to the higher level	24.00		
h	Discussion at various level	16.00		
i	Preparation of fair copy of approve d draft			20.00
j	Submission of F C to higher level	6.00		
k	Transferring the signed document to the dispatch section		6.00	

2	Transparency			
a	Soft copy preparation of updated details and mailing	8.00		
3	Public interaction	40.00		
4	Follow up activities on the reports submitted to government in legal committee	12.00		
5	Follow-up actions on the discussion of high level committee meeting	18.00		
6	Providing information to the general section dealing with assembly questions	32.00		
7	Regular inspections	40.00		
8	Details of the consent issued, list preparation and submission to the board meeting and review meetings	9.00		
9	Registration under battery rule	3.33		
10	Registration under plastic rule	3.33		
11	Reporting regarding bio medical rule	2.00		
12	Joint inspection with other departments	6.00		
13	Project related meeting	1.50		
14	Reporting to HO	3.75		
15	Random inspections	3.00		
16	Registration under H W rule			
a	Receiving application		0.75	
b	File generation		0.75	
c	Document verification		2.50	
d	Note the findings in the file	2.50		
e	Preparation of draft registration	4.00		
f	File submission to the higher level	0.60		
g	Fair copy preparation of the approved registration			1.67
h	Submission to the higher level	0.50		
i	Transferring the signed document to the dispatch section		0.40	
17	Complaints			
a	Receiving inwards		9.50	
b	File generation		2.50	
c	Forwarding copy of complaints to RO/HO	1.25		
d	Drafting of report (reply) to the concerned party	13.33		
e	Typing of report (reply) to the concerned party			3.33
f	Noting in the file and submit to the higher level	5.33		
g	Discussions at various level	1.67		
h	Prepare FC of the approved draft			3.33
i	Transferring the signed document to the dispatch section			1.00

18	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of notice		0.50	
b	File generation		0.50	
c	Drafting of authorization	2.67		
d	Receipt of judgments	0.10		
e	Drafting a counter report to the court	4.00		
f	Drafting a Para wise report to the Court	2.00		
g	Clarifying and counter checking the bills of advocates		0.33	
h	Drafting of proceeding of bill payment		0.33	
i	Preparation of FC of approved drafts			0.17
j	Transfer the signed document to the dispatch section		0.35	
19	Hearings conducted at higher levels by Chairman MS or CEE			
a	Drafting hearing notice to the concerned	0.75		
b	Preparation of FC			0.50
c	Transferring signed documents to the dispatch section		0.15	
d	Intimating concerned people over phone		1.00	
e	Recording the minutes of hearing Drafting the minutes and submitting	0.50		
f	Preparation of FC			0.50
	transfer to the dispatch		0.35	
g	Follow up the decisions made and the actions taken		0.50	
20	Reply to the audit Query			
a	Drafting	1.00		
b	Preparation of FC			0.33
c	Transferring the concerned general section		0.10	
21	Arranging public hearings			
a	Receiving application		0.01	
b	Verifying for adequate fee and significant documents		0.03	
c	Drafting letter to the district collector	0.06		
d	Notice preparation	0.04		
e	Publishing in media		0.04	
f	Drafting letters to the concerned people	0.06		
g	Drafting letters to MOEF	0.06		
h	Preparation of FC			0.03
i	Transferring to the dispatch section		0.01	
j	Drafting letters to the concerned district office	0.04		
k	Drafting Proceedings regarding to cash release		0.01	
l	Preparation of FC			0.03
m	Transferring the FC to the dispatch		0.01	
n	Receiving of minutes verification	0.01		
o	Transfer to the dispatch section		0.01	

22	Board meetings agenda notes			
a	Drafting	0.11		
b	Preparation of FC			0.06
c	Transferring to the concerned general section		0.02	
23	Right to information act			
a	Application receiving		0.67	
b	File generation		0.67	
c	Information collection	3.33		
d	Drafting interim or final reply to the applicant	4.44		
e	Drafting reply to the RTI general section	3.33		
f	Submitting to the higher level	0.67		
g	Preparation of FC			1.5600
	submit to the H L	0.67		
h	Transferring to the dispatch section		0.67	
i	Drafting letter forwarding copies to the applicant	0.67		
j	Preparing FC			2.22
k	Transferring signed documents to the dispatch section		0.67	
24	Janasamparka Paripadi	1.00		
Total Man-hours Per Month		377.00	112.72	33.72
Constant allowances@11%		41.47	12.40	3.71
Total work content		418.47	125.12	37.43

Table No: 1.28

SL No	JOB DESCRIPTION	RE-ALLOCATION OF DUTIES IN DISTRICT OFFICE, ALAPPUZHA		
		Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	File processing		24	
2	Assisting AE in the office	48		
3	Consent issue order drafting	40		
4	Registering consent issue order	6		
4	Completion of effluent analysis data	32		
5	Assistance to EE in office activities	40		
6	Maintenance Sampling register	12		
7	assistance to AEE in office activities	32		
8	Attending Complaint	20		
9	Report preparation to RO or HO	12		
10	Office building maintenance, vehicle, and equipments		24	
11	Consent administration	40		
12	Consent enquiry	60		
13	Report drafting of Different monitoring works	13.33		

14	Compilation water quality data	8		
15	Regular Maintenance of sampling record	2		
16	registering samplings in record book	4		
17	Consent refusal	2.8		
18	Show cause notice	10.67		
19	registering consent fee collection		10.67	
20	Inspection and sampling	36		
21	Complaint enquiry	40		
22	HRMP, PMGRC, LC reports	2		
23	Field inspection with AE/AEE	12		
24	Air quality monitoring register maintenance	1		
25	WP (L) Report	0.5		
26	Sound monitoring	6		
27	Monthly Reports	2		
28	Periodical inspection	6		
29	Air monitoring	1		
30	CPCB Report	3		
31	Water sampling	0.75		
32	stack monitoring	0.83		
Sub Total		493.88	58.67	0.00
Constant Allowances		54.33	6.45	0.00
Total Work Content		548.21	65.12	0.00

Table No: 1.29

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE, KOTTAYAM				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Consent administration			
a	Application verification		9.6	
b	File generation		9.6	
c	Verification of details		16	
d	Calculation adequate fee		32	
e	Noting observations and recommendations	16		
f	Discussion at various level	64		
g	Field inspection	48		
h	Preparation Verification report	60		
i	Submission of F C to higher level	9.6		
j	Transferring the signed document to the dispatch section		9.6	
2	Complaints			
a	Receiving inwards		7.2	
b	File generation		7.2	
c	Drafting of reply	55		
d	typing of reply to the concerned party			5
e	Noting in the file and submit to the higher level	12		

f	Discussions at various level	48		
g	Prepare FC of the approved draft			24
h	Transferring the signed document to the dispatch section		7.2	
3	Right to information act			
a	Application receiving		2.4	
b	File generation		2.4	
c	Information collection	12		
d	Drafting interim or final reply to the applicant	16		
e	Inspection in the field	24		
f	Submitting to the higher level	2.4		
g	Preparation of FC			8
h	Drafting letter forwarding copies to the applicant	6.4		
i	Transferring signed documents to the dispatch section		2.4	
4	Public interaction & phone calls	22.4		
5	Sutharya Keralam complaints forwarded from HO and RO	8		
6	Review meeting	2.67		
7	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of notice		1.2	
b	File generation		1.2	
c	Field enquiry or sampling	12		
d	preparation of draft report	8		
e	Clarifying and counter checking the bills of advocates		4	
f	Drafting of proceeding of bill payment		6	
g	Preparation of FC of approved drafts			4
h	Transferring the signed documents to the account section		1.2	
i	Preparation of fair copy of approve d draft		2	
j	Drafting of cheques forwarded to the advocate		1.2	
k	Transfer the signed document to the dispatch section		1.2	
8	Regular inspections and stack monitoring	8		
9	Hearing conducted	8		
10	Staff meeting	4		
11	Accidental inspection	36		
12	Public awareness	1.33		
13	Joint inspection with other departments	1.67		
14	Erumely festival			
a	Supervision	7.5		
b	Collection of samples	7.5		
15	Training	10.25		
Sub Total		510.72	123.60	41.00
Constant Allowances		56.18	13.60	4.51
Total Work Content		566.90	137.20	45.51

Table No: 1.30

RE-DEPLOYMENT OF DUTIES IN IDUKKI				
SL NO	JOB DESCRIPTION	Total Man Hours Per Month		
		AE	ASSISTANT	TYPIST
1	Transparency			
a	Soft copy preparation of updated details and mailing	8		
2	Registers Maintenance	12		
3	Public interaction	22.4		
4	Record keeping of news paper clippings		4	
5	Consent administration			
a	Application verification		6	
b	File generation		4	
c	Verification of details		13.3	
d	Calculation adequate fee		13.3	
e	Noting observations and recommendations	16		
f	Field inspection	40		
g	Draft consent preparation	80		
h	File submission to the higher level	16		
i	Discussion at various level	26.67		
j	Preparation of fair copy of approved draft			53.33
k	Submission of F C to higher level	16		
l	Transferring the signed document to the dispatch section		16	
6	Complaints			
a	Receiving inwards		1.6	
b	File generation		1.6	
c	Noting in the file and submit to the higher level	5.33		
d	Discussions at various level	10.67		
e	Prepare FC of the approved draft			5.33
f	Transferring the signed document to the dispatch section		1.6	
7	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of application		0.8	
b	File generation		0.8	
c	Drafting of authorization	5.33		
d	Receipt of judgments	0.8		
e	Forwarding judgments to the concerned offices	4		
f	Drafting a counter report to the court	10.67		
g	Drafting a Para wise report to the Court	10.67		
h	Clarifying and counter checking the bills of advocates		2.67	
i	Drafting of proceeding of bill payment		1.33	
j	Preparation of FC of approved drafts			0.8
8	Right to information act			
a	Application receiving		0.4	
b	File generation		0.4	
c	Information collection	2		

d	Drafting interim or final reply to the applicant	2.67		
e	Drafting reply to the RTI general section	2		
f	Submitting to the higher level	0.4		
g	Preparation of FC	1.33		
h	submit to the Higher level	0.4		
i	Transferring to the dispatch section		0.4	
9	Regular inspections	8		
10	Random inspections	2		
11	Details of the consent issued, list preparation and submission to the board meeting and review meetings	3.33		
12	Follow up activities on the reports submitted to government in legal committee	2		
13	Follow-up actions on the discussion of high level committee meeting	1		
14	Providing information to the general section dealing with assembly questions	0.67		
15	Joint inspection with other departments	3		
16	Registration under H W rule			
a	Receiving application		0.1	
b	File generation		0.1	
c	Document verification		0.27	
d	Note the findings in the file	0.33		
e	File submission to the higher level	0.1		
f	Fair copy preparation of the approved registration			0.33
g	Submission to the higher level	0.1		
h	Transferring the signed document to the dispatch section		0.1	
17	Hearings conducted at higher levels by Chairman MS or CEE			
a	Drafting hearing notice to the concerned	0.03		
b	Preparation of FC		0.01	
18	Sabarimala duty	3.5		
19	Award enquiry	0.33		
20	Janasamparka Paripadi	0.56		
21	Public awareness	0.5		
22	Project related meeting	0.27		
23	Reporting to HO	0.67		
24	Equipments maintenance		0.17	
Subtotal		319.73	68.95	59.79
Consent allowance @ 11%		35.17	7.58	6.58
Total Work content		354.90	76.53	66.37

Table No: 1.31

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE-ERNAKULAM-1				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Consent administration	160		
2	Inspection in field	48		
3	Inspection in industries	48		
4	Inward putting up in concerned files		6	
5	Report entering in to computer			20
6	Consent or notice drafting	80		
7	Fair copy preparation			16
8	Drafting consent for concerned Taluk	18		
9	Entering VR reports to the computer	16		
10	Register maintenance		24	
11	Put up draft VR to superior officers	6.67		
12	File putting up works		2	
13	Right to information act related works	4		
14	General technical correspondence and list preparation	2.5		
15	General correspondence to CPCB	2.08		
16	Circular keeping		1	
17	Bill certification of equipments maintenances in District office 1		2.5	
18	Coordination of list prepared by GEA	0.83		
19	Maintenance of office vehicle		1	
20	Legal related works(HR,OMBUD,PETITION)	2.5		
21	Seminar workshops and awareness	1		
22	Joint inspection with other institutions	0.5		
23	Equipments maintenance		0.08	
Total Man-hours Per Month		390.08	36.58	36.00
Constant allowances@11%		42.91	4.02	3.96
Total work content		432.99	40.60	39.96

Table No: 1.32

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE-EKM2				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Application categorization		40	
2	Put up the inward in to respective files		30	
3	Put files for Consent to Establish, Operate and Renewal		24	

4	Consent administration	64		
5	Inspection in the field	72		
6	Data entry in to computer			30
7	General File put up		30	
8	Inward put ups		36	
9	Consent note or Draft preparation	56		
10	RTI and Other legal administration	20		
11	Complaint administration	30		
12	Meetings	2		
13	Sabarimala duty	3.61		
14	Training	5.14		
15	Election Duty	2.5		
16	Data preparation under statutes	1.11		
17	Ambient air monitoring	0.58		
18	Sound level monitoring	1.04		
19	Award enquiry	0.5		
20	World environment day celebration	0.54		
21	Janasamparkka Paripadi	0.5		
22	Meetings in head office	0.5		
Total Man-hours Per Month		260.02	160.00	30.00
Constant allowances@11%		28.60	17.60	3.30
Total work content		288.62	177.60	33.30

Table No: 1.34

RE-DEPLOYMENT OF DUTIES IN ENVIRONMENTAL SURVEILLANCE CENTER				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Assistance in administration works		40	
2	Tap water sampling	5		
3	Attending complaints from public	53.33		
4	Complaint enquiry	12		
5	Industrial sampling	50.67		
6	Consent administration	20		
7	Consent enquiry	4.17		
8	Inspection for consent administration	12.5		
9	Completion of effluent quality and analysis data	13.33		
10	Verification of invoices of different sampling and analysis charges		6.67	
11	Enquiries as per directions from Lok Ayuktha, Human rights commission, Ombudsman.	3.33		

12	Preparation of reports to Lok Ayuktha, Human rights commission, Ombudsman.	3.33		
13	Preparation of monthly progress reports	1		
14	Preparing reports to HO and RO	7.5		
15	Preparing reports of biomedical waste rule	1.67		
16	Preparing reports of municipal solid waste	1.67		
17	Preparing reports of hazardous waste rules	3.33		
18	Completion of Bio medical waste rules activities	0.83		
19	Completion of municipal solid waste rules activities	0.83		
20	Completion of Hazardous water rule activities	0.83		
21	Preparing reports regarding Lok sabha, Rajya sabha, Legislative assembly etc	0.9375		
22	Preparation of various annual reports	1		
23	Stack monitoring	3.33		
24	Completion of stack monitoring data	1.11		
Sub Total		201.70	46.67	0.00
Constant allowances@11%		22.19	5.13	0.00
Total Work Content		223.88	51.80	0.00

Table No: 1.35

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE THRISSUR				
SL NO	JOB DESCRIPTION	Total Man Hours per Month		
		AE	ASSISTANT	TYPIST
1	Consent related activities			
a	File generation - Checking documents ,attachments and fees		14.4	
b	primary scrutinizing		24	
c	clarifying the discrepancies		24	
d	Final verification & submit to the AE		24	
e	Scrutinizing of application	14.4		
f	Application put up with old file records	72		
g	computer data updating			0.77
h	clarifying the discrepancies	24		
i	Draft preparation	96		
j	file put up		14.4	
k	Inspection / Sampling/ Sound monitoring	60		
l	preparation of inspection report	20		
m	Sample hand over to lab	3		
q	Consent refusal intention	0.42		

r	fair copy checking			14.4
2	Registers Maintenance	6		
3	Transparency			
a	Soft copy preparation of updated details and mailing	12		
4	Public interaction and Phone Calls	42		
5	JSP/MSW/Joint Inspection	12		
6	Regular inspections	16		
7	Random inspections	8		
8	Duty in Help Desk		48	
9	General work			
a	List preparation (eg. Quarry details)	1		
10	Staff meeting	0.5		
11	Stack monitoring	2		
12	Monthly report			
a	Preparation of monthly report of consent issued	0.5		
13	Registration under H W rule			
a	Receiving application		0.03	
b	File generation		0.03	
c	Document verification		0.04	
d	Note the findings in the file	0.07		
e	Preparation of draft registration	0.17		
f	File submission to the higher level	0.03		
g	Fair copy preparation of the approved registration			0.08
h	Submission to the higher level	0.03		
i	Transferring the signed document to the dispatch section		0.03	
14	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of notice		0.21	
b	File generation		0.21	
c	Receipt of judgments	1.25		
d	Drafting a counter report to the court	3.33		
e	Preparation of FC of approved drafts	0.83		
15	Details of the consent issued, list preparation and submission to the board meeting and review meetings	0.33		
16	Providing information to the general section dealing with assembly questions	0.17		
17	Plan scheme			
a	File opening		0.004	
b	Discussion on all levels	0.04		

c	Draft proposal preparation	0.03		
d	FC of proposal preparation			0.010
e	Follow up of past schemes	0.08		
18	Registration under battery rule	0.11		
19	Report regarding Bio-medical rule	0.13		
20	Registration under plastic rule	0.39		
21	Award enquiry	0.5		
22	Janasamparka Paripadi	0.67		
23	Public awareness	0.5		
24	Project related meeting and registers	1.67		
25	Soil mining	2.13		
26	Complaint related activities			
a	File generation - Checking documents and attachments		3.13	
b	Draft preparation & Fair copy setting	9.79		
c	Draft letter to local authority/ Complainant/ Industry	7.83		
d	Entering in to the register	1.18		
27	RTI Request			
a	Draft preparation and file put up	5.56		
28	Erumeli Festival- supervision / monitoring/ collection of samples	0.5		
29	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.			
a	Preparation of reports	0.69		
30	General report called from RO/HO			
a	Fair copy preparation and put up	0.69		
Sub Total		428.52	152.484	15.26
Constant allowances@11%		47.14	16.77	1.68
Total Work Content		475.66	169.26	16.94

Table No: 1.36

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE-PALAKKAD				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Consent administration			
a	Application verification		8.4	
b	File generation		8.4	
c	Verification of details	14		
d	Field inspection	40		

e	Calculation adequate fee		28	
f	Noting observations and recommendations	28		
g	Draft consent preparation	32		
h	File submission to the higher level	4.8		
i	Discussion at various level	24		
j	Preparation of fair copy of approved draft		16	
k	Submission of F C to higher level	4.8		
l	Transferring the signed document to the dispatch section		4.8	
2	Complaints			
a	Receiving inwards		6	
b	File generation		6	
c	Inspection and report preparation	48		
d	Typing of report (reply) to the concerned party			40
e	Noting in the file and submit to the higher level	12.8		
f	Discussions at various level	24		
g	Prepare FC of the approved draft			16
h	Transferring the signed document to the dispatch section		4.8	
3	Right to information act			
a	Application receiving		4.8	
b	File generation		4.8	
c	Information collection	16		
d	Drafting interim or final reply to the applicant	32		
e	Drafting reply to the RTI general section	16		
f	Submitting to the higher level	4.8		
g	Preparation of FC and submit to the H L			16
h	Transferring to the dispatch section		4.8	
i	Drafting letter forwarding copies to the applicant	3.2		
j	Transferring signed documents to the dispatch section	4.8		
4	Register maintenance		9.6	
5	Public interaction	24		
6	Water CESS report	20		
6	Attending phone calls	24		
7	Registration under H W rule			
a	Receiving application		1	
b	Document verification	1.67		
c	Note the findings in the file	3.33		
d	Fair copy preparation of the approved registration			6.67
e	Submission to the higher level	1		
f	Transferring the signed document to the dispatch section	1		

8	Notice preparation	2.67		
9	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of application		0.4	
b	File generation		0.4	
c	Inquiry and reporting	4		
d	Preparation of FC of approved drafts			2.67
e	Drafting of cheques forwarded to the advocate	0.4		
f	Transfer the signed document to the dispatch section	0.4		
10	Registration under E waste rule	2		
11	Registration under battery rule	2.67		
12	Reporting on bio-medical rule	6		
	Internal meetings	1		
13	Joint inspection	6		
14	Reporting to H O	1		
Total Man-hours Per Month		410.34	108.20	81.34
Constant allowances@11%		45.14	11.90	8.95
Total work content		455.48	120.10	90.29

Table No: 1.37

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE MALPPURAM				
SL NO	JOB DESCRIPTION	Total Man Hours per Month		
		AE	ASSISTANT	TYPIST
1	Consent administration			
a	Application verification		12	
b	File generation		12	
c	Verification of details		20	
d	Field inspection	32		
e	Calculation adequate fee		40	
f	Noting observations and recommendations	40		
g	Discussion at various level	60		
2	Complaint related activities			
a	File generation - Checking documents and attachments		16	
c	Draft preparation & Fair copy setting	50		
d	Draft letter to local authority/ Complainant/ Industry	40		
e	Entering in to the register	6		
3	Public interaction and Phone Calls	48		
4	Registration under H W rule			

a	Receiving application		1.2	
b	File generation		1.2	
c	Document verification		2	
d	Note the findings in the file	3.2		
e	Preparation of draft registration	8		
f	File submission to the higher level	1.2		
5	RTI Request	20		
6	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of application		3.6	
b	File generation		3.6	
c	Receipt of judgments	6		
d	Drafting a counter report to the court	16		
e	Preparation of FC of approved drafts			4
7	Registers Maintenance	6		
8	Reporting to HO	8		
9	News paper record keeping		4	
10	Transparency			
a	Soft copy preparation of updated details and mailing	12		
11	Duty in Help Desk		48	
12	JSP/MSW/Joint Inspection	2		
13	Regular inspections	4		
14	Random inspections	2		
15	Staff meeting	2		
16	Sutharya Keralam	4		
17	Details of the consent issued, list preparation and submission to the board meeting and review meetings	1		
18	Providing information to the general section dealing with assembly questions	0.5		
19	Monthly report			
a	Preparation of monthly report of consent issued	0.5		
20	Registration under battery rule	0.67		
21	Effluent sampling	3		
22	District level office meetings	2		
23	Registration under plastic rule	0.67		
21	Award enquiry	2		
24	Janasamparka Paripadi	0.08		
25	Reply to audit query	0.11		

26	Public awareness	4		
27	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.			
a	Preparation of reports	0.69		
28	General report called from RO/HO			
a	Fair copy preparation and put up	0.69		
29	Building maintenance		0.5	
30	Equipments maintenance		0.67	
31	Employees trainings	5		
Total Man-hours Per Month		391.31	164.77	4
Constant allowances@11%		43.04	18.12	0.44
Total work content		434.35	182.89	4.44

Table No: 1.38

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE-KOZHIKODE				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Consent administration			
a	File generation - Checking documents ,attachments and fees		28	
b	primary scrutinizing		14	
c	Final verification by AE	28		
d	Scrutinizing of application	5.6		
e	Application put up with old file records		8.4	
f	computer data updating	14		
g	clarifying the discrepancies	14		
h	Draft preparation	56		
i	Finalizing the report			28
j	Inspection / Sampling/ Sound monitoring	14		
k	preparation of inspection report	2.33		
l	Sample hand over to lab	8.4		
m	draft consent	10		
n	Draft V.R	10		
o	clarifying the discrepancies	10		
p	Consent refusal intention			2.8
q	fair copy checking	10		
2	Complaint related activities			
a	File generation - Checking documents and attachments		0.4	

b	Entering in to the register/ Computer		0.2	
c	Draft preparation & Fair copy setting	1.33		
d	Draft letter to local authority/ Complainant/ Industry	0.67		
e	Entering in to the register		0.2	
3	RTI Request			
a	Verification/ entering in register		0.58	
b	Draft preparation and file put up	1.67		
c	Fair copy preparation and put up			0.83
4	Court cases /OBDN/ WPC Lok Ayuktha Cases			
a	verification of case with previous records	0.14		
b	Entering in to the register/ Computer	0.03		
c	file put up		0.02	
5	Complaints/ High court cases/ HRMP etc			
a	Sampling	0.83		
b	preparation of inspection report	0.14		
c	draft report	0.14		
7	Sutharya Keralam/ Complaint forwarded from head office, Regional office, District collector, ADM etc.			
a	verification of case with previous records / entering in register	0.14		
b	preparation of file		0.02	
c	data collection for reports	0.08		
d	draft report and file put up	0.14		
8	Accidental inspection			
a	Sampling	0.01		
b	Prepare inspection report	0.01		
c	Verification with old records	0.02		
d	Fair copy preparation			0.01
9	General work			
a	List preparation (e.g. Quarry details)	1		
12	Training	3		
13	Public interaction and Phone Call	48		
14	Hearing conducted at D.O	0.33		
15	Staff meeting	0.25		
17	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.			
a	verification and Registration		0.17	
b	Preparation of reports	0.67		
18	General report called from RO/HO			
a	Fair copy preparation and put up			0.33

19	Details mailing to HO			2.4
20	Monthly report			
a	Preparation of monthly report of consent issued	0.25		
21	Inward/Letters			
a	Find out the files	24		
b	Attaching the specific letter	12		
c	write on Note sheet	12		
22	Erumeli Festival- supervision / monitoring/ collection of samples	3.5		
23	Duty in Help Desk	144		
Total Man-hours Per Month		436.68	51.99	34.37
Constant allowances@11%		48.03	5.72	3.78
Total work content		484.71	57.71	38.15

Table No: 1.39

RE-DEPLOYMENT OF DUTIES IN WAYANAD				
SL NO	JOB DESCRIPTION	Total Man Hours Per Month		
		AE	ASSISTANT	TYPIST
1	Consent administration			
a	Application verification		12	
b	File generation		9.6	
c	Verification of details		16	
d	Calculation adequate fee		16	
e	Noting observations and recommendations	25.6		
f	Draft consent preparation	64		
g	File submission to the higher level	9.6		
h	Discussion at various level	32		
i	Preparation of fair copy of approve d draft			32
j	Submission of F C to higher level	9.6		
k	Transferring the signed document to the dispatch section		9.6	
2	Registration under H W rule			
a	Receiving application		1.2	
b	File generation		1.2	
c	Document verification		2	
d	Note the findings in the file	3.2		
e	Preparation of draft registration	8		
f	File submission to the higher level	1.2		
g	Fair copy preparation of the approved registration			4
h	Submission to the higher level	1.2		

i	Transferring the signed document to the dispatch section		1.2	
3	Complaints			
a	Receiving inwards		3.6	
b	File generation		3.6	
c	Drafting of report (reply) to the concerned party	30		
d	typing of report (reply) to the concerned party			12
e	Noting in the file and submit to the higher level	9.6		
f	Discussions at various level	12		
g	Prepare FC of the approved draft			12
h	Transferring the signed document to the dispatch section		3.6	
4	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of application		1.2	
b	File generation		1.2	
c	Drafting and typing of authorization	8		
d	Drafting a counter report to the court	6		
e	Drafting a Para wise report to the Court	10		
f	Clarifying and counter checking the bills of advocates		1.2	
g	Preparation of FC of approved drafts			4
h	Transfer the signed document to the dispatch section		1.2	
5	Right to information act			
a	Application receiving		1.2	
b	File generation		1.2	
c	Information collection	6		
d	Drafting interim or final reply to the applicant	8		
e	Drafting reply to the RTI general section	4		
f	Submitting to the higher level	1.2		
g	Preparation of FC			4
h	submit to the higher level	1.2		
i	Transferring to the dispatch section		1.2	
j	Drafting letter forwarding copies to the applicant	4		
k	Preparing FC			2
l	Transferring signed documents to the dispatch section		1.2	

6	Transparency			
a	Soft copy preparation of updated details and mailing	6		
7	Vehicle Maintenance and hiring		4	
8	Record keeping of news paper clippings		4	
9	Registers Maintenance	4		
10	Equipments maintenance		4	
11	Random inspections	2		
12	Meeting at Collect orate	4		
13	Air Quality Monitoring	8		
14	Building Maintenance		0.5	
15	Regular inspections	12		
a	Inspection Note preparation	6		
b	Forwarded to higher level	0.6		
16	Arranging public hearings			
a	Receiving application		0.04	
b	Verifying for adequate fee and significant documents		0.06	
c	Drafting letter to the district collector	0.06		
d	Notice preparation	0.08		
e	Publishing in media		0.17	
f	Drafting letters to the concerned people	0.11		
g	Preparation of FC			0.03
h	Transferring to the dispatch section		0.008	
17	Details of the consent issued, list preparation and submission to the board meeting and review meetings	1.5		
18	Sabarimala duty	0.58		
Subtotal		299.33	101.97	70.03
Consent allowance @ 11%		32.93	11.22	7.70
Total Work content		332.26	113.19	77.73

Table No: 1.40

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE, KANNUR				
SL No	JOB DESCRIPTION	Total Man hours per month		
		AE	ASSISTANT	TYPIST
1	Consent related activities			
a	File generation - Checking documents ,attachments and fees		14.4	
b	primary scrutinizing		14.4	
c	clarifying the discrepancies		20	
f	Application put up with old file records	14.4		
g	computer data updating	10		
i	Draft preparation	80		
k	Inspection / Sampling/ Sound monitoring	24		
l	preparation of inspection report	12		
m	Sample hand over to lab	0.8		
n	draft consent	56		
p	clarifying the discrepancies	0.8		
q	Consent refusal intention	1.86		
2	Public interaction and Phone Call	38.4		
3	Details mailing to HO	4		
4	Duty in Help Desk			
a	Form filling		6	
b	Checking documents and receiving application		9.6	
c	Clarification of details		14	
5	Complaint related activities			
a	File generation - Checking documents and attachments		0.8	
b	Entering in to the register/ Computer		0.8	
c	Draft preparation & Fair copy setting	5.33		
d	Draft letter to local authority/ Complainant/ Industry	2.67		
e	Entering in to the register		0.8	
6	Registration under H W rule			
a	Receiving application		0.6	
b	File generation		0.6	
c	Document verification		1	
d	Note the findings in the file	1		
e	Preparation of draft registration	4		
f	File submission to the higher level	0.6		
g	Fair copy preparation of the approved registration			2

h	Submission to the higher level	0.6		
i	Transferring the signed document to the dispatch section		0.6	
7	General report called from RO/HO			
a	Fair copy preparation and put up	2.67		
8	Court cases /OBDN/ WPC Lok Ayuktha Cases			
a	verification of case with previous records	2		
b	Drafting a counter report to the court	1		
c	Drafting a Para wise report to the Court	1.5		
d	Preparation of FC of approved drafts			0.5
e	Entering in to the register/ Computer		0.3	
f	file put up		0.15	
g	Transfer the signed document to the dispatch section		0.15	
9	Complaints/ High court cases/ HRMP etc			
a	Sampling	5		
b	preparation of inspection report	1.5		
c	draft report	0.5		
10	RTI Request			
a	Application receiving		0.65	
b	File generation		0.65	
c	Information collection	1.67		
d	Drafting interim or final reply to the applicant	1.67		
e	Drafting reply to the RTI general section	2.17		
f	Submitting to the higher level	0.5		
g	Preparation of FC			1.17
h	submit to the H L	0.5		
i	Drafting letter forwarding copies to the applicant	1.67		
j	Preparing FC			1.083333
k	Transferring signed documents to the dispatch section		0.5	
11	Legislative Committee/ Rajya Sabha/ Lok Sabha/ Parliamentary questions/ Assembly questions			
a	Verification/ entering in register		0.05	
b	preparation of file		0.05	
c	data collection for reports	0.25		
d	draft report and file put up	0.17		
12	General work			
a	List preparation (e.g. Quarry details)		1.67	
13	JSP/MSW/Joint Inspection	4.5		
14	Monthly report			
a	Preparation of monthly report of consent issued	1		

15	Report called from head office, Regional office, District office, District collector, Board meeting, Review meeting etc.			
a	verification and Registration	0.08333		
b	Preparation of reports	0.3333		
16	Staff meeting	1		
17	Stack monitoring	3		
18	Sutharya Keralam/ Complaint forwarded from head office, Regional office, District collector, ADM etc.			
a	verification of case with previous records / entering in register	0.33		
b	preparation of file	0.05		
c	data collection for reports	0.25		
d	draft report and file put up	0.17		
19	Accidental inspection			
a	Sampling	0.17		
b	Prepare inspection report	0.04		
c	Verification with old records	0.02		
d	Fair copy preparation			0.01
20	Training	0.41		
23	Hearing conducted at D.O	0.33		
Total Man-hours Per Month		290.92	87.77	4.76
Constant allowances@11%		32.00	9.65	0.52
Total work content		322.92	97.42	5.29

Table No: 1.41

RE-DEPLOYMENT OF DUTIES IN DISTRICT OFFICE, KASARAGOD				
Sl No	Job Description	Total Man Hours Per Month		
		AE	ASSISTANT	TYPIST
1	Transparency			
a	Soft copy preparation of updated details and mailing	6		
2	Public interaction	16.8		
3	Registers Maintenance	10.8		
4	Consent administration			
a	Application verification		3.6	
b	File generation		3.6	
c	Verification of details		9.6	
d	Calculation adequate fee		6	
e	Noting observations and recommendations	9.6		

f	Calling for clarification	3.6		
g	receiving clarifications and verification	12		
h	Conducting Inspection	72		
i	Verification of ETP and collection of sample	36		
j	sample hand over to Lab	2.4		
k	Preparing inspection report	24		
l	Submission of Inspection report to High level	3.6		
m	Draft consent/refusal preparation	24		
n	File submission to the higher level	3.6		
o	Discussion at various level	18		
p	Preparation of fair copy of approved draft			12
q	Submission of F C to higher level	3.6		
r	Transferring the signed document to the dispatch section	3.6		
5	Registration under H W rule			
a	Receiving application		0.4	
b	File generation		0.4	
c	Document verification		3.33	
d	Note the findings in the file	1.07		
e	Calling for clarification	0.67		
f	Conducting Inspection	10.67		
g	Preparing inspection report	2.67		
h	Submission of Inspection report to Higher Authority	0.4		
i	Preparation of draft V.R	2		
j	File submission to the higher level	0.4		
k	Fair copy preparation of the approved V.R			1.33
l	Submission to the higher level	0.4		
m	Transferring the signed document to the dispatch section		0.4	
6	Complaints			
a	Receiving inwards		1.6	
b	File generation		1.6	
c	Forwarding copy of complaints to Panchayath and concerned officers	2		
d	Follow up works with Panchayath	4		
e	Submission of Received inward from panchayath to higher level	4		
f	Drafting and typing of report (reply) to the concerned party	8		
g	Transferring the signed document to the dispatch section		1.2	
h	Conducting Inspection	24		

i	Preparing inspection report	8		
j	Submission of Inspection report to Higher Authority	1.2		
k	Discussions at various level	6		
l	Drafting of report (reply) to the concerned party	8		
m	Prepare FC of the approved draft			4
n	Transferring the signed document to the dispatch section		1.2	
7	Reporting to HO	1.67		
8	Regular inspections	6		
9	Random inspections	8		
10	Right to information act			
a	Application receiving		14	
b	File generation		4.67	
c	Information collection	7		
d	Drafting interim or final reply to the applicant	7		
e	Drafting reply	14		
f	Submitting to the higher level	4.67		
g	Preparation of FC			7.93
h	submitting to the higher level	1.4		
i	Transferring to the dispatch section		4.67	
11	Duties related with court cases, appellate authority and Lok Ayuktha			
a	Reception of notice		0.1	
b	File generation		0.1	
c	Receipt of judgments	0.5		
d	Entering and submission to higher level	0.5		
e	Conducting Inspection	2		
f	Preparing inspection report	0.67		
g	Submission of Inspection report to Higher Authority	0.1		
h	Drafting a Para wise comments and grounds	1		
i	Preparation of FC of approved drafts			0.33
j	Transferring the signed documents to the dispatch section		0.1	
12	Registration under E Waste rule			
a	Follow up works with Panchayath	1.33		
13	Registration under battery rule			
a	Receiving application		0.1	
b	File generation		0.1	
c	Document verification		0.33	

d	Note the findings in the file	0.27		
e	Calling for clarification	0.333		
f	Conducting Inspection	2		
g	Preparing inspection report	0.67		
h	Submission of Inspection report to Higher Authority	0.1		
i	Preparation of draft V.R	0.67		
j	File submission to the higher level	0.1		
k	Fair copy preparation of the approved V.R			0.5
l	Submission to the higher level	0.1		
m	Transferring the signed document to the dispatch section		0.1	
n	collecting half yearly reports	1.33		
o	compiling half yearly reports	1.33		
14	Record keeping of news paper clippings		1.67	
15	Municipal Solid Waste Management			
a	correspondence with municipality coming under the purview of the Board	1.25		
16	Building Maintenance		0.42	
17	Registration under plastic rule			
a	Follow up works with Panchayath	0.42		
b	checking and verifying of disposal of BMW in hospitals	8		
c	correspondence with hospitals regarding compliance of rules	2.5		
18	Details of the consent issued, list preparation and submission to the board meeting and review meetings	1		
19	Follow up activities on the reports submitted to government in legal committee	1.5		
20	Providing information to the general section dealing with assembly questions	2		
21	Hearings conducted at higher from D.O			
a	Drafting hearing notice to the concerned	0.333		
b	Preparation of FC			0.17
c	Transferring signed documents to the dispatch section		0.05	
d	Intimating concerned people over phone		0.42	
e	Recording the minutes of hearing Drafting the minutes and submitting	1		
f	Preparation of FC			0.11
g	Transfer to the dispatch		0.05	0.05

	h	Follow up the decisions made and the actions taken		0.42	
22		Reply to the audit Query			
	a	Drafting	0.083		
	b	Preparation of FC			0.02
	c	Transferring the concerned general section		0.0041	
23		Arranging public hearings			
	a	Receiving application		0.0041	
	b	Verifying for adequate fee and significant documents		0.0069	
	c	Drafting letter to the district collector	0.02		
	d	Notice preparation	0.02		
	e	Publishing in media		0.0138	
	f	Drafting letters to the concerned people	0.0138		
	g	Drafting Proceedings regarding to cash release	0.02		
	h	Preparation of FC			0.0138
	i	Transferring the FC to the dispatch		0.0041	
	j	conducting hearing	0.416		
	k	preparing of minutes	0.17		
	l	Drafting covering letters and forward minutes to the HO	0.083		
	m	Preparation of FC			0.0208
	n	Transfer to the dispatch section		0.0041	
24		Plan scheme			
	a	File opening		0.0138	
	b	Discussion on all levels	0.0416		
	c	Draft proposal preparation	0.027		
	d	FC of proposal preparation			0.01388
	e	Submission to Govt. for additional grant	0.0347		
	f	Follow up of past schemes	0.0833		
25		Joint inspection with other departments	1.333		
26		Sabarimala duty	3.5		
27		Award			
	a	forwarding of application to the units	0.3472		
	b	preliminary enquiry	1.25		
	c	final enquiry with award committee	0.625		
28		Janasamparka Paripadi			
	a	Application receiving		0.02083	
	b	File opening		0.02083	
	c	Conducting Inspection	0.4166		
	d	Preparing inspection report	0.1388		

e	Submission of Inspection report to High level	0.0208		
f	Discussions at various level	0.1388		
g	Drafting of report (reply) to the concerned party	0.139		
h	typing of report (reply) to the concerned party			0.034
i	Prepare FC of the approved draft			0.06944
j	Transferring the signed document to the dispatch section		0.02083	
k	follow up works with unit complainant and higher authority		0.1388	
29	Equipments maintenance		0.0555	
Total Man-hours Per Month		422.75	60.48	26.59
Constant allowances@11%		46.50	6.65	2.93
Total work content		469.25	67.14	29.52

WORK MEASUREMENT TABLES OF **ASSISTANT SCIENTIST**

From: - Table No: 2.1

To: - Table No: 2.10

Table No: 2.1

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Central Lab			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	8	5	16.00
2	Supervision of analysis work	Daily	10	5	20.00
3	Field data verification of air sampling	Weekly	2	30	4.00
4	NAMP, EDB Data checking	Daily	2	10	8.00
5	Report checking (monthly, Yearly)	Monthly	5	20	1.67
6	Stock verification of Chemicals	yearly	1	369	0.51
7	Checking record	Monthly	10	15	2.50
8	Correspondence work with HO, DO, CL	Monthly	10	15	2.50
9	Supervision of Duplicate analysis	Weekly	1	15	1.00
10	Ionic balance check	Monthly	1	20	0.33
11	Supervision of PGSA and JSA	Daily	15	5	30.00
12	Supervision of NS operator	Monthly	2	120	4.00
13	SWMP Sampling	yearly	137	120	22.83
14	NWMP sampling	yearly	57	120	9.50
15	Supervision of Ambient Water analysis	Monthly	12	40	8.00
16	Supervision of Waste water analysis	Monthly	95	40	63.33
17	Organize training programme	yearly	3	90	0.38
18	NABL Accreditation works	Monthly	10	20	3.33
19	Vehicle maintenances	yearly	4	90	0.50
Sub total					198.39
Constant allowance @ 11%					21.82
Total Work content					220.21
Man hours available per month/ person					136.00
Number of person required					1.62

Table No: 2.2

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Kozhikode			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Data verification of air sampling	Weekly	1	30	2.00
4	Book Keeping (Project Account)	Weekly	1	50	3.33
5	NAMP and EDB Data checking	Daily	1	10	4.00
6	Heavy Metal Analysis				
a	Cu Analysis	yearly	504	15	10.50
b	Cr	yearly	504	25	17.50
c	Pb	yearly	504	15	10.50
d	Zn	yearly	504	10	7.00
e	Cd	yearly	504	15	10.50
f	Mn	yearly	504	35	24.50
g	Ni	yearly	504	15	10.50
h	Fe	yearly	504	15	10.50
7	Standard preparation	yearly	30	40	1.67
8	Calibration of Atomic Absorption Spectrometer	yearly	75	10	1.04
9	Supervision of Air Sample analysis	Monthly	10	10	1.67
10	Preparation of 'Test well'	yearly	12	150	2.50
11	Project Sampling	yearly	12	120	2.00
12	Report checking (Monthly, yearly)	Monthly	5	10	0.83
13	Preparation of power point presentation				
a	MSW	yearly	1	15	0.02
b	Chaliyar	yearly	1	15	0.02
c	NWMP	yearly	1	15	0.02
14	Stock verification of Chemicals	yearly	1	369	0.51
15	Maintaining record	Monthly	10	6	1.00
16	Correspondence work with HO, CL	Monthly	2	10	0.33
17	Supervision of Duplicate analysis	Weekly	1	10	0.67
18	Ionic balance check	Monthly	1	20	0.33
19	Supervision of PGSA and JSA	Daily	1	5	2.00
20	Supervision of NS operator	Monthly	1	120	2.00
21	SWMP Sampling	yearly	120	120	20.00
22	NWMP sampling	yearly	108	120	18.00
23	Supervision of Ambient Water	Monthly	9	40	6.00
24	Supervision of Waste water	Monthly	32	40	21.33
25	Organize training programme	yearly	2	60	0.17
26	Purchase of Chemicals, Glass wares and other laboratory equipments	yearly	4	90	0.50

Sub total	205.45
Constant allowance @ 11%	22.60
Total Work content	228.05
Man hours available per month/ person	136.00
Number of person required	1.68

Table No: 2.3

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Kollam			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	Weekly	1	30	2.00
4	NAMP and EDB Data checking	Monthly	2	60	2.00
5	Report checking (Monthly, Yearly)	Monthly	5	5	0.42
6	Stock verification of Chemicals and maintenances of Laboratory	yearly	1	300	0.42
7	Maintaining record	Monthly	10	6	1.00
8	Correspondence work with HO, DO, CL	Monthly	4	10	0.67
9	Supervision of PGSA and JSA	Daily	6	10	24.00
10	Supervision of NS operator	Monthly	1	120	2.00
11	SWMP Sampling	Monthly	3	120	6.00
12	NWMP sampling	Monthly	10	120	20.00
13	Supervision of Ambient Water Analysis	Monthly	1	210	3.50
14	Purchase of Laboratory equipments	yearly	4	60	0.33
15	Preparation of invoice	Monthly	11	3	0.55

Sub total	74.88
Constant allowance @ 11%	8.24
Total Work content	83.12
Man hours available per month/ person	136.00
Number of person required	0.61

Table No: 2.4

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Alappuzha			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	Weekly	1	30	2.00
4	NAMP and EDB Data checking	Monthly	2	60	2.00
5	Report checking (Monthly, Yearly)	Monthly	5	5	0.42
6	Stock verification of Chemicals and maintenances of Laboratory	yearly	1	300	0.42
7	Maintaining record	Monthly	10	6	1.00
8	Correspondence work with HO, DO, CL	Monthly	4	10	0.67
9	Supervision of PGSA and JSA	Daily	6	10	24.00
10	Supervision of NS operator	Monthly	1	120	2.00
11	SWMP Sampling	yearly	216	120	36.00
12	NWMP sampling	yearly	68	120	11.33
13	Supervision of Ambient Water Analysis	Monthly	12	40	8.00
14	Purchase of Laboratory equipments	yearly	4	60	0.33
15	Preparation of invoice	Monthly	11	3	0.55
Sub total					100.72

Constant allowance @ 11%	11.08
Total Work content	111.80
Man hours available per month/ person	136.00
Number of person required	0.82

Table No: 2.5

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Pathanamthitta			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Weekly	4	5	1.33
2	Supervision of analysis work	Daily	5	5	10.00
3	Field data verification of air sampling	Monthly	1	30	0.50
4	NAMP, EDB Data checking	Monthly	5	60	5.00
5	Report checking (monthly, Yearly)	Monthly	1	5	0.08
6	Stock verification of Chemicals	yearly	5	300	2.08
7	Checking record	Daily	4	6	9.60
8	Correspondence work with HO, DO, CL	Monthly	3	10	0.50
9	Purchase of Laboratory equipments	Monthly	2	45	1.50
10	Preparation of invoice	Monthly	1	3	0.05
11	Supervision of PGSA and JSA	Daily	4	10	16.00
12	Supervision of NS operator	Monthly	10	10	40.00
13	SWMP Sampling	Monthly	1	120	2.00
14	NWMP sampling	Monthly	1	120	2.00
15	Supervision of Ambient Water analysis	Daily	4	5	8.00
16	Air monitoring including biogas plant	Monthly	4	100	6.67
17	Industrial sampling (effluent)	Monthly	1	120	2.00
18	Vehicle maintenances	yearly	6	90	0.75

Sub total	108.07
	11.89
Total Work content	119.95
Man hours available per month/ person	136.00
Number of person required	0.88

Table No: 2.6

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Idukki			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	Weekly	2	30	4.00
4	NAMP and EDB Data checking	Monthly	2	60	2.00
5	Report checking (Monthly, Yearly)	Monthly	4	5	0.33
6	Stock verification of Chemicals and maintenances of Laboratory	Yearly	1	300	0.42
7	Maintaining record	Daily	6	6	14.40
8	Correspondence work with HO, DO, CL	Monthly	2	10	0.33
9	Supervision of PGSA and JSA	Daily	6	10	24.00
10	Supervision of NS operator	Monthly	1	120	2.00
11	SWMP Sampling	Monthly	1	120	2.00
12	NWMP sampling	Monthly	1	120	2.00
13	Supervision of Ambient Water Analysis	Monthly	1	40	0.67
14	Purchase of Laboratory equipments	Yearly	4	60	0.33
15	Preparation of invoice	Monthly	10	3	0.50

16	AWQM Sampling	Monthly	1	120	2.00
17	Special Duties	Yearly	2	369	1.03
Sub total					68.01
Constant allowance @ 11%					7.48
Total Work content					75.49
Man hours available per month/ person					136.00
Number of person required					0.56

Table No: 2.7

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Thrissur			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	4	5	8.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	Weekly	4	30	8.00
5	Report checking (Monthly, Yearly)	Monthly	5	5	0.42
6	Stock verification of Chemicals and maintenances of Laboratory	yearly	1	300	0.42
7	Maintaining record	Daily	4	6	9.60
8	Correspondence work with HO, DO, CL	Monthly	4	10	0.67
9	Supervision of PGSA and JSA	Daily	2	20	16.00
11	SWMP Sampling	Monthly	3	120	6.00
12	NWMP sampling	Monthly	10	120	20.00
13	Supervision of Ambient Water Analysis	Monthly	1	210	3.50

14	Purchase of Laboratory equipments	yearly	4	60	0.33
15	Preparation of invoice	Monthly	11	3	0.55
Sub total					81.48
Constant allowance @ 11%					8.96
Total Work content					90.45
Man hours available per month/ person					136.00
Number of person required					0.67

Table No: 2.8

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Malappuram			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	Weekly	1	30	2.00
4	SAMP Data checking and sending to CL	Monthly	1	30	0.50
5	Report checking (Monthly, Yearly)	Monthly	1	20	0.33
6	Stock verification of Chemicals and maintenances of Laboratory	Yearly	1	300	0.42
7	Maintaining record	Weekly	1	6	0.40
8	Correspondence work with HO, DO, CL	Monthly	7	10	1.17
9	Supervision of PGSA and JSA	Daily	5	10	20.00
10	Supervision of NS operator	Weekly	2	120	16.00
11	SWMP Sampling	Monthly	1	120	2.00
12	NWMP sampling	Monthly	3	120	6.00
13	Supervision of Ambient Water Analysis	Daily	1	40	16.00
14	Purchase of Laboratory equipments	Yearly	1	120	0.17
15	Preparation of invoice	Monthly	5	3	0.25
16	Preparation of standard solutions, Calibration curves,	monthly	1	180	3.00
17	Preparing analysis reports and invoices for effluent samples	monthly	10	60	10.00
18	Preparing analysis reports of well water collected from schools under the AWM Projects and drafting letters to the concerned schools	Monthly	4	60	4.00

19	Preparing of draft project reports (plan scheme projects)	Yearly	2	180	0.50
20	Verifying and forwarding data of NWMP, SWMP and AWQM projects to CL	Monthly	1	90	1.50
21	Forwarding samples to CL for Pesticide analysis	Monthly	2	30	1.00
22	Power point presentation of SMNP data	Yearly	3	20	0.08
23	Training Programmes	Yearly	2	150	0.42
24	Sabarimala Duty	Yearly	8	369	4.10
25	Computer Maintenon's	Yearly	6	150	1.25
Sub total					97.73
Constant allowance @ 11%					10.75
Total Work content					108.48
Man hours available per month/ person					136.00
Number of person required					0.80

Table No: 2.9

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Wayanad			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	weekly	2	30	4.00
4	NAMP and EDB Data checking	Monthly	2	60	2.00
5	Report checking (Monthly, Yearly)	Monthly	5	5	0.42
6	Stock verification of Chemicals and maintenances of Laboratory	Yearly	1	300	0.42
7	Maintaining record	Daily	3	6	7.20
8	Correspondence work with HO, DO, CL	Monthly	5	10	0.83
9	Supervision of PGSA and JSA	Daily	6	10	24.00
10	Supervision of NS operator	weekly	1	120	8.00

11	SWMP Sampling	Monthly	2	120	4.00
12	NWMP sampling	Monthly	2	120	4.00
13	Supervision of Ambient Water Analysis	Monthly	15	40	10.00
14	Purchase of Laboratory equipments	Yearly	4	60	0.33
15	Preparation of invoice	Monthly	10	3	0.50
Sub total					77.70
Constant allowance @ 11%					8.55
Total Work content					86.25
Man hours available per month/ person					136.00
Number of person required					0.63

Table No: 2.10

Work Measurement Sheet					
Department: KSPCB			Designation: Assistant scientist		
Section: Scientific Kasaragod			Shift: General		
Sl.No	Activity	Period	Frequency	Unit Time (Minutes)	Total Man Hours Per Month
1	Supervision of instrument Calibration	Daily	2	5	4.00
2	Supervision of analysis work	Daily	4	5	8.00
3	Field data verification of air sampling register	Weekly	1	30	2.00
4	SAMP Data checking and sending to CL	Monthly	1	30	0.50
5	Report checking (Monthly, Yearly)	Monthly	5	5	0.42
6	Stock verification of Chemicals and maintenances of Laboratory	Yearly	1	300	0.42
7	Maintaining record	Monthly	10	6	1.00
8	Correspondence work with HO, DO, CL	Monthly	5	10	0.83
9	Supervision of PGSA and JSA	Daily	6	10	24.00
10	Supervision of NS operator	Weekly	2	120	16.00
11	SWMP Sampling	Monthly	1	120	2.00
12	NWMP sampling	Monthly	3	120	6.00
13	Supervision of Ambient Water Analysis	Monthly	30	40	20.00
14	Purchase of Laboratory equipments	Yearly	4	60	0.33
15	Preparation of invoice	Monthly	11	3	0.55
16	Preparation of standard solutions, Calibration curves,	monthly	1	180	3.00

17	Preparing analysis reports and invoices for effluent samples and drafting letters forwarding the same to the concerned units	monthly	5	60	5.00
18	Preparing analysis reports of well water collected from schools under the AWM Projects and drafting letters to the concerned schools	Monthly	4	60	4.00
19	Preparing of draft project reports (plan scheme projects)	Yearly	3	180	0.75
20	Verifying and forwarding data of NWMP, SWMP and AWQM projects to CL	Monthly	1	90	1.50
21	Forwarding samples to CL for Pesticide analysis	Monthly	2	30	1.00
Sub total					101.30
Constant allowance @ 11%					11.14
Total Work content					112.44
Man hours available per month/ person					136.00
Number of person required					0.83

WORK MEASUREMENT TABLES OF
SENIOR SCIENTIFIC ASSISTANT

From: - Table No: 3.1

To: - Table No: 3.1

Table No: 3.1

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: SENIOR SCIENTIFIC ASSISTANT		
SECTION: SCIENTIFIC SECTION (DO, KOTTAYAM)			SHIFT: GENERAL		
SI No	Activity	Period	Frequency	Time (Mnts)	Total Man Hours Per Month
1	Collection of Samples	yearly	36	180	9.00
2	supervision of Reagent and absorption media preparation	Daily	1	5	2.00
3	supervision of Analysis	Daily	1	120	48.00
4	purchase of glassware's and chemicals	monthly	1	60	1.00
5	preparation of progress report and performance report	monthly	1	10	0.17
6	correspondence related to laboratory	Daily	1	15	6.00
7	preparation of annual report	yearly	1	180	0.25
8	Supervision of Erumeli Sample Analysis	yearly	120	10	1.67
9	RTI related works	monthly	3	20	1.00
10	preparation of reports to legislative Assembly Questions	yearly	2	120	0.33
11	supervision of calibration of instruments	Daily	4	2	3.20
12	supervision of registers	Daily	5	2	4.00
Sub Total(hours per month)					72.62
Constant allowances@13%					9.44
Total work content					82.06
Man-hours available per month per person					136.00
No. of persons required					0.60



WORK MEASUREMENT TABLES OF
JUNIOR SCIENTIFIC ASSISTANT & POST
GRADUATE SCIENTIFIC APPRENTICE

From: - Table No: 4.1

To: - Table No: 4.15

Table No: 4.1

WORK CONTENT SHEET					
Department: Central Lab, KSPCB			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
SL No	Activity	Period	Frequency	Unit Time	Man hours per Month
1	Receiving and coding of Sample	Daily	37	2	29.60
2	Reagent preparation	weekly	18	20	24.00
3	National Water Monitoring Programme	Yearly	228	895	283.42
4	State Water Monitoring Programme	Monthly	7	895	104.42
5	Ambient Water Quality Monitoring	Monthly	16	580	154.67
6	Effluent/ complaint Analysis	Monthly	78	175	227.50
7	Air Monitoring	Monthly	60	80	360.00
8	Heavy Metal Analysis	Monthly	23	275	105.42
9	Pesticide Analysis	Monthly	82	486	664.20
10	Chithrapuzha Analysis	Monthly	20	680	219.17
11	Mud/ Solid Waste Analysis	Monthly	7	135	15.75
12	Check the temperature	Monthly	20	2	0.67
13	Waste Water Analysis	monthly	95	120	190.00
14	Calibration of Instruments	Daily	6	10	24.00
15	Standardization	daily	13	10	52.00
16	Graph preparation	monthly	50	5	4.17
17	Calculations	Daily	32	3	38.40
18	Record Maintenance	Daily	11	3	13.20
19	online EDB entry	Daily	1	15	6.00
20	Monthly Progress report	Monthly	5	60	5.00
21	Participation in Quality Control	Monthly	1	180	3.00
22	Display of Results of Air Analysis	Daily	1	10	4.00
23	annual report preparation	Yearly	1	120	0.17
24	duplication analysis	Daily	1	20	8.00
25	training programme	Yearly	2	180	0.50
	Sub Total(hours per month)				2537.24
	Constant allowances@13%				329.84
	Total work content				2867.08
	Man-hours available per month per person				136.00
	No. of persons required				21.08

Table No: 4.2

WORK CONTENT SHEET					
District: Kozhikode, KSPCB			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
Sl. no	Activity	Period	Frequency	Unit Time	Man-hours/ month
1	Receiving and coding of Sample	Daily	4	2	3.20
2	Reagent Preparation	Weekly	26	20	34.67
3	Water Analysis	Monthly	-	-	483.67
4	National Ambient Air Quality Monitoring	Monthly	-	140	270.00
5	Assist AS to Heavy Metal Analysis	Yearly	504	56	39.20
6	Calibration of Instruments	Daily	4	10	16.00
7	Standardization	Daily	4	10	16.00
8	Graph Preparation	monthly	15	5	1.25
9	Calculations	Daily	4	2	0.13
10	Duplicate Analysis	weekly	1	30	2.00
11	Records Maintenance	Daily	5	3	6.00
12	online EDB Entry	Daily	1	5	2.00
13	Billing	monthly	15	3	0.75
14	Monthly Progress Report	monthly	5	20	1.67
15	Preparation of Annual Report	Yearly	1	20	0.03
16	Attending Training	Yearly	2	180	0.50
Sub Total of Man-Hours/Month					877.06
Allowance (13%)					114.02
Total work content					991.08
Man-hours available per month per person					136.00
No. of persons required					7.29

Table No: 4.3

WORK CONTENT SHEET					
District: Thiruvananthapuram			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
Sl.no	Activity	Period	Frequency	Unit time	Man-hours/ month
1	Receiving and coding of Sample	Weekly	26	2	3.47
2	Reagent preparation	Monthly	17	20	5.67
3	National Water Monitoring Programme	Yearly	124	890	153.28
4	State Water Monitoring Programme	Monthly	7	627	73.15
5	Ambient Water Quality Monitoring	Monthly	10	890	148.33
6	Analysis of Effluent & Complaint Samples	Monthly	23	255	97.75
7	National Ambient Air Quality Monitoring	Monthly	81	80	108.00
8	Stack Monitoring	Monthly	10	20	3.33
9	Special Projects Akkulam & Vellayani)	Monthly	-	777	130.20
10	Attukal Pongala	Yearly	1	1000	1.39
11	Deepavali	Yearly	1	280	0.39
12	Thiruvallam-Vavubali	Yearly	1	720	1.00
13	calibration of instruments	daily	4	10	16.00
14	Standardization	daily	4	10	16.00
15	Graph preparation	monthly	10	5	0.83
16	Calculations	weekly	26	3	31.20
17	records maintenance	daily	3	3	3.60
18	online EDB entry	daily	1	5	2.00
19	Billing	monthly	23	3	1.15
20	monthly progress reports	monthly	3	20	1.00
21	attending of trainings	Yearly	2	180	0.50
22	duplicate analysis	daily	1	30	12.00
	Sub Total(hours per month)				810.24
	Constant allowances@13%				105.33
	Total work content				915.57
	Man-hours available per month per person				136.00
	No. of persons required				6.73

Table No: 4.4

WORK CONTENT SHEET					
District: Kollam			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
Sl No	Activity	Period	Frequency	Unit time(minutes)	Man hours per Month
1	Receiving and coding of Sample	Monthly	413	2	13.77
2	Reagent Preparation	Monthly	17	20	5.67
3	National Water Monitoring Programme	Yearly	138	345	66.13
4	State Water Monitoring Programme	Monthly	18	50	15.00
5	Ambient Water Quality Monitoring	Yearly	-	335	32.19
6	Effluent	Yearly	91	220	27.81
7	Air Monitoring	Monthly	360	20	120.00
8	Special Project: Sasthamkotta	Monthly	8	315	42.00
9	calibration of instruments	Weekly	2	10	1.33
10	Standardization	Daily	4	10	16.00
11	Graph preparation	Monthly	10	5	0.83
12	Calculations	Daily	17	3	20.40
13	records maintenance	Daily	5	3	6.00
14	Billing	Yearly	91	3	0.38
15	Attending training	Yearly	2	180	0.5
Sub Total(hours per month)					368.00
Constant allowances@13%					47.84
Total work content					415.84
Man-hours available per month per person					136.00
No. of persons required					3.06

Table No: 4.5

WORK CONTENT SHEET					
District: Pathanamthitta			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
SL No	Activity	Period	Frequency	Unit time (min)	Man hours per Month
1	Receiving and coding of Sample	Daily	11	2	8.80
2	Reagent Preparation	Monthly	17	20	5.67
3	National Water Monitoring Programme	Monthly	9	902	11.28
4	State Water Monitoring Programme	Monthly	39	232	150.80
5	Ambient Water Quality Monitoring	Monthly	19	395	94.97
6	Effluent	Monthly	12	400	80.00
7	Air Monitoring	Monthly	180	80	60.00
8	Complaint	monthly	13	519	9.21
9	calibration of instruments	weekly	4	10	2.67
10	Standardization	Daily	8	10	5.33
11	Graph preparation	monthly	10	5	0.83
12	Calculations	daily	3	3	3.60
13	records maintenance	daily	5	3	6.00
14	online EDB entry	monthly	4	5	0.33
15	Billing	monthly	10	3	0.50
16	monthly progress report	monthly	6	20	2.00
17	Help Desk	Daily	1	120	48.00
18	Attending training	yearly	2	180	0.50
19	Transparency Report	Daily	1	15	6.00
Sub Total(hours per month)					496.50
Constant allowances@13%					64.54
Total work content					561.04
Man-hours available per month per person					136.00
No. of persons required					4.13

Table No: 4.6

WORK CONTENT SHEET					
District: Alappuzha			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
Sl. no	Activity	Period	Frequency	Unit time	Man-hrs/month
1	Receiving and coding of Sample	Daily	4	2	3.20
2	Reagent Preparation	Monthly	17	20	5.67
3	National Water Monitoring Programme	Yearly	68	990	88.00
4	State Water Monitoring Programme	Monthly	18	880	187.67
5	Ambient Water Quality Monitoring	Monthly	12	595	92.33
6	Effluent	Monthly	11	255	46.75
7	Air Monitoring	Monthly	20	80	120.00
8	House Boat	Monthly	12	765	153.00
9	calibration of Instruments	Daily	4	10	16.00
10	Standardization	Daily	4	10	16.00
11	Graph Preparation	Monthly	10	5	0.83
12	Calculations	Daily	4	3	4.80
13	Records Maintenance	Daily	4	3	4.80
14	Online EDB Entry	Daily	1	5	2.00
15	Billing	Monthly	11	3	0.55
16	Monthly Progress Report	Monthly	5	20	1.67
17	Attending Training	Yearly	2	180	0.50
Sub Total(hours per month)					743.77
Constant allowances@13%					96.69
Total work content					840.46
Man-hours available per month per person					136.00
No. of persons required					6.18

Table No: 4.7

WORK CONTENT SHEET					
District: Kottayam			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
SL No	Activity	Period	Frequency	Unit time (minutes)	Man hours per Month
1	Receiving and Coding of Samples	Daily	4	2	3.20
2	Reagent Preparation	weekly	26	20	34.67
3	Collection of Samples	Yearly	36	180	9.00
4	National Water Monitoring Programme	Yearly	52	865	52.86
5	State Water Monitoring Programme	Monthly	-	615	123.83
6	Ambient Water Quality Monitoring	Monthly	-	445	69.33
7	Effluent	Monthly	15	430	110.00
8	Air Monitoring	Monthly	360	80	120.00
9	Analysis of Erumeli Samples	Yearly	120	335	55.83
10	Calibration of Instruments	Daily	4	10	16.00
11	Standardization	daily	4	10	16.00
12	Graph Preparation	monthly	10	5	0.83
13	Calculations	Daily	4	3	4.80
14	Record Maintenance	Daily	5	3	6.00
15	Online EDB Entry	Daily	1	5	2.00
16	Billing	monthly	15	3	0.75
17	Monthly Progress Report	monthly	5	20	1.67
18	Preparation of Erumeli Report	yearly	1	180	0.25
19	Attending Training	Yearly	2	180	0.50
Sub Total(hours per month)					627.52
Constant allowances@13%					81.58
Total work content					709.10
Man-hours available per month per person					136
No. of persons required					5.21

Table No: 4.8

WORK CONTENT SHEET					
District: Idukki			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
SL No	Activity	Period	Frequency	Unit time (mi)	Man hours per Month
1	Receiving and coding of Sample	daily	10	2	8.00
2	Reagent Preparation	Monthly	17	20	5.67
3	State Water Monitoring Programme	Monthly	20	310	103.33
4	Ambient Water Quality Monitoring	Monthly	18	575	136.17
5	Effluent	Monthly	12	360	72.00
6	Air Monitoring	Monthly	180	80	60.00
7	Complaint	monthly	12	385	77.00
8	Special Project	monthly	7	180	21.00
9	calibration of instruments	daily	4	10	16.00
10	Standardization	daily	8	10	32.00
11	Graph preparation	monthly	10	5	0.83
12	Calculations	daily	10	3	12.00
13	records maintenance	daily	6	3	7.20
14	Billing	monthly	12	3	0.60
15	Attending training	Yearly	2	180	0.50
16	monthly progress report	monthly	1	20	0.33
Sub Total(hours per month)					552.64
Constant allowances@13%					71.84
Total work content					624.48
Man-hours available per month per person					136
No. of persons required					4.59

Table No: 4.9

WORK CONTENT SHEET					
District: ESC Ernakulam			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
SL No	Activity	Period	Frequency	Unit time (min)	Man hours per Month
1	Receiving and Coding of Samples	Daily	8	2	3.20
2	Reagent Preparation	Monthly	17	20	5.67
3	Daily Sample analysis(Periyar, Kuzhikandom Thodu and Tap)	Daily	8	845	338.00
4	Ambient Water Quality Monitoring	Monthly	3	430	7.17
5	Effluent	Monthly	-	610	193.00
6	Air Monitoring	Monthly	360	80	120.00
7	Stack Monitoring	Monthly	15	80	20.00
8	Boat Sample Analysis	Monthly	12	620	10.33
9	Complaint Well	Monthly	8	370	49.33
10	calibration of instruments	daily	4	10	16.00
11	Standardization	Daily	8	10	32.00
12	Graph preparation	monthly	20	5	1.67
13	Calculations	daily	8	3	9.60
14	records maintenance	daily	5	3	6.00
15	online EDB entry	daily	1	5	2.00
16	Billing	monthly	40	3	2.00
17	DD register maintenance	monthly	40	2	1.33
18	monthly progress report	monthly	5	20	1.67
19	attending training	yearly	2	180	0.50
Sub Total(hours per month)					819.46
Constant allowances@13%					106.53
Total work content					925.99
Man-hours available per month per person					136
No. of persons required					6.81

Table No: 4.10

WORK CONTENT SHEET					
District: Thrissur			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
Sl No	Activity	Period	Frequency	Unit time(minutes)	Man hours per Month
1	Receiving and coding of Sample	Monthly	225	2	7.50
2	Reagent Preparation	Monthly	17	20	5.67
3	National Water Monitoring Programme	yearly	42	845	49.29
4	State Water Monitoring Programme	Monthly	12	845	169.00
5	Ambient Water Quality Monitoring	Monthly	-	640	79.33
6	Effluent	Monthly	-	20	23.33
7	Air Monitoring	Monthly	180	20	60.00
8	Complaint	monthly	-	20	28.00
9	calibration of instruments	daily	2	10	8.00
10	Standardization	daily	4	10	16.00
11	Graph preparation	monthly	10	5	0.83
12	Calculations	daily	12	3	14.40
13	records maintenance	daily	4	3	4.80
14	Billing	monthly	14	3	0.70
15	monthly progress report	monthly	1	20	0.33
16	Attending training	yearly	2	180	0.5
Sub Total(hours per month)					467.69
Constant allowances@13%					60.80
Total work content					528.49
Man-hours available per month per person					136.00
No. of persons required					3.89

Table No: 4.11

WORK CONTENT SHEET					
District: Palakkad			Designation: JSA & PGSA		
Section: Scientific			Shift: General		
Sl No	Activity	Period	Frequency	Unit time (min)	Man hours per Month
1	Receiving and Coding of samples	Daily	12	2	9.60
2	Reagent Preparation	Monthly	17	20	5.67
3	National Water Monitoring Programme	Yearly	74	827	84.94
4	State Water Monitoring Programme	Monthly	11	167	30.62
5	Ambient Water Quality Monitoring	Monthly	-	515	53.94
6	Effluent	Monthly	30	255	127.50
7	Air Monitoring	Monthly	180	80	60.00
8	Stack Monitoring	Monthly	15	40	10.00
9	Complaint Analysis	Monthly	3	210	10.50
10	Other Project (EMAK)	Monthly	30	335	152.25
11	calibration of instruments	Weekly	19	10	12.67
12	Standardization	daily	8	10	32.00
13	Graph preparation	monthly	20	5	1.67
14	Calculations	daily	12	3	14.40
15	records maintenance	daily	7	3	8.40
16	online EDB entry	daily	1	5	2.00
17	Billing	monthly	30	3	1.50
18	monthly progress report	monthly	1	20	0.33
19	attending training	yearly	2	180	0.50
	Sub Total(hours per month)				618.48
	Constant allowances@13%				80.40
	Total work content				698.89
	Man-hours available per month per person				136
	No. of persons required				5.14

WORK MEASUREMENT TABLES OF **ASSISTANTS**

From: - Table No: 5.1

To: - Table No: 5.28

ADMINISTRATION WING

Table No: 5.1

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ADMINISTRATION)		
SECTION: Head office E 1			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours Per Month
1	Requisition to Employment Exchange-Posting/Relieving through Employment Exchange in the Head Office/DO's/DC's of the Board for various posts	Monthly	5	45	3.75
2	Posting/Extension of deputation staff in the Board	Weekly	1	20	1.33
3	Transfer and postings in the Board (General Transfer)	Half Yearly	5	60	0.83
4	Declaration of probation of staff in all cadres in the Board	Monthly	2	30	1
5	Promotion/Grade promotion for staff in the Board	Quarterly	5	60	1.66
6	Pay revision implementation	Yearly	1	180	0.25
7	RTT's/LA interpellation/WP (c)/Sutharya Keralam Registration	Weekly	5	60	20
8	Amendment of service regulation in the Board	Yearly	2	30	0.08
9	Employment under dying-in-harness schemes in the Board	Yearly	2	30	0.08
10	LWA of staff in the Board	Yearly	2	60	0.16
11	Gradation list	Yearly	1	2520	3.5
12	Test as pollution control acts and rules	Half Yearly	5	120	1.66
13	Appointment of standing counsel and additional standing counsel of the Board	Once in 5 Year	4	180	0.2
14	Appointment of legal adviser in the Board	Once in 5 Year	1	180	0.05
15	Deputation of Board staff to other organization	Yearly	4	30	0.16
16	PSC appointment in the Board	Quarterly	1	60	0.33
17	Creation of posts recommended by SCMC	Quarterly	3	120	2
18	Experience Certificate/NOC/NLC's for staff in the Board	Weekly	5	30	10
19	Shifting of posts	Half Yearly	2	60	0.33
20	Board Meeting	Quarterly	5	120	3.33
Total Man hours in a month					50.75

Constant Allowances @ 11%	5.58
Total work content	56.33
Man hours available per month/person	136
Present Strength	1
Number of persons Required	0.41

Table No: 5.2

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ADMINISTRATION)		
SECTION: E 2 section			SHIFT: GENERAL		
Sl. No	Activity/description	Period	Frequency (in nos.)	Unit time (in min)	Total man hours per month
1	Preparation of salary bill of all the staff including deputation staff of Head Office (78 Staffs)	Monthly	1	720	12
2	Preparation of salary bill of Daily wages of waged staff (12 Staffs)	Monthly	1	360	6
3	Sanctioning of increments and earned leave surrender to all categories of the staff of Head Office, District Offices Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzha and all the EE/ES and above of the Board	Monthly	10	40	6.66
4	Maintenance of service books of all the staff of Head office and that of EE/ES and above the Board	Monthly	1	30	0.5
5	Sanctioning of all kinds of leaves of the staff of Head Office, District Offices Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzha and all the EE/ES and above of the Board	Weekly	10	30	20
6	Pay revision of staff of the Board	1 / 5 Year	78	60	1.3
7	Pay fixation of staff of the Board	Bimonthly	3	60	1.5
8	Sanctioning of pensioner benefits and maintenance of pension books of all the staff of the Board	Yearly	7	180	1.75
9	Pension revision of all the staff of the Board	1 / 5 Year	96	60	1.6
10	Maintenance of Attendance register, Abstract register and casual leave register of Head Office staff & casual leave register of EE/ES and above of the Board	Daily	5	30	60
11	Remittance of LIC and handloom recoveries of the staff of Head Office	Monthly	3	30	1.5
12	Profession tax, handloom recoveries of the staff of the Head Office	Yearly	2	180	0.5
13	Leave salary and pension contribution of AO & ACO	Yearly	2	45	0.125
14	Issuance of Last Pay Certificate of all the staff of Head office	Yearly	10	30	0.416
15	Issuance of salary Certificates of the staff of Head Office	Yearly	10	15	0.208
16	Co-Operative recoveries of the staff of Head Office	Monthly	2	15	0.5

17	Preparation of Dearness Allowance arrear bill of the staff of Head Office	Yearly	2	3600	10
18	Retainer fee to the standing counsels and legal advisors of the Board	Monthly	5	30	2.5
19	Papers relating to election (Lok Sabha, Niyama Sabha, Panchayath)	1 / 5 Year	3	60	0.05
20	All papers relating to the security staff of the Board	Monthly	2	30	1
21	Maintenance of pay bill register	Monthly	2	60	2
Total Man hours in a month					130.11
Constant Allowances @ 11%					14.31
Total work content					144.42
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.061

Table No: 5.3

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ADMINISTRATION)		
SECTION: E 3 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Purchase and distribution of stationery items and maintenance of stock register	Daily	5	10	20
1.2	Printing of stationery items	Yearly	15	45	0.93
1.3	Sanctioning of TA of the staff of the Head Office and all Heads of Office	Monthly	40	45	30
1.4	Purchase of furniture and maintenance of stock register	Yearly	5	30	0.20
1.5	Sanction of advertisements	Weekly	40	15	40
1.6	Purchase of Government calendars and diaries	Yearly	1	30	0.04
1.7	Reimbursement of telephone charge/News Paper charge to AO/ACO	Monthly	1	15	0.25
1.8	Subscription of News Papers and Magazines in Head Office-Sanction of payment	Monthly	1	15	0.25
1.9	Service charge of photocopy machines-Sanction of payment	Bimonthly	3	45	1.125
1.10	Other miscellaneous papers in the establishment	Quarterly	20	45	5

1.11	Visit to regional stationery office and District forms store	Monthly	10	60	10
1.12	Disbursement of TA to Board members	Quarterly	8	45	2
1.13	Purchase and filling of computer printer cartridges	Weekly	8	15	8
Total Man hours in a month					117.81
Constant Allowances @ 11%					12.95
Total work content					130.77
Man hours available per month/person					136
Present Strength					1
Number of persons Required					0.96

Table No: 5.4

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ADMINISTRATION)		
SECTION: E 4 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Stock verification	Yearly	14	30	0.58
1.2	Official language Malayalam	Monthly	8	50	6.66
1.3	Official advertising agency	Yearly	10	30	0.41
1.4	Lok Ayuktha statement of assets & liabilities	Yearly	30	60	2.5
1.5	GEA and PGSA Engineering	Monthly	30	30	15
1.6	Engagement of commercial apprentice	Monthly	20	60	20
1.7	Confidential reports	Monthly	10	30	5
1.8	Issue of official mobile phones and SIM cards	Monthly	15	60	15
1.9	Attendance management system	Daily	3	30	36
1.10	Annual reports for the Board	Yearly	20	60	1.66
1.11	File for Board Re-constitution	Quarterly	20	30	3.33
1.12	Submission of assets and liabilities	Yearly	15	30	0.625

Total Man hours in a month	106.79
Constant Allowances @ 11%	11.74
Total work content	118.53
Man hours available per month/person	136
Present Strength	1
Number of persons Required	0.87

Table No: 5.5

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ADMINISTRATION)		
SECTION: E 5 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Inwards- Checking Tapal, Signing on AD card and Receiving, Opening Tapal and sorting, then sorted Tapal entered into inward register and distributed to respective wings for marking, receiving the Tapal after marking, then sorted to respective sections, then numbering Tapal and enter into distribution register for distribution to respective seats	Daily	150	3	180
1.2	Dispatches- Receive and check the Tapal, Entering in dispatch register (cover address, Date, File No.), AD Card attaching if necessary, packing the cover, checking weight and then post stamp, attaching registration slip in the dispatch register for registered posts.	Daily	80	5	160
Total Man hours in a month					340
Constant Allowances @ 11%					37.4
Total work content					377.4
Man hours available per month/person					136
Present Strength					1
Number of persons Required					2.775

Table No: 5.6

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ADMINISTRATION)		
SECTION: E 6 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Payment of official mobile phone bills	Monthly	45	5	3.75
1.2	Payment of land phone bills of HO	Bimonthly	10	8	0.66
1.3	Payment of official internet connection of the staffs	Monthly	6	8	0.8
1.4	Payment of electricity charge of HO/Annex	Monthly	7	7	0.81
1.5	Payment of water charge of HO	Bimonthly	1	20	0.16
1.6	Rent of HO and annex building	Monthly	6	10	1
1.7	Non-refundable advance and temporary advance of Board employees	Weekly	15	25	25
1.8	Group insurance scheme of Board employees	Monthly	15	10	2.5
1.9	House building advance of Board employees	Yearly	6	7	0.05
1.10	Medical reimbursement of Board employees	Monthly	15	75	18.75
1.11	Works related to office shifting	Half Yearly	2	60	0.33
1.12	LIC maturity claim	Half Yearly	3	60	0.5
1.13	Personnel accidental claims	Yearly	18	7	0.175
1.14	Board meeting	Quarterly	3	40	0.66
Total Man hours in a month					55.18
Constant Allowances @ 11%					6.07
Total work content					61.25
Man hours available per month/person					136
Present Strength					1
Number of persons Required					0.45

ACCOUNTS WING

Table No: 5.7

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ACCOUNTS)		
SECTION: A 1 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In Month
1.1	Maintenance of all Treasury & Bank accounts	Daily	20	10	80
1.2	All receipts and payments related to HO	Daily	20	5	40
1.3	Imprest keeping	Daily	5	5	10
1.4	Voucher maintenance of HO and preparation of expenditure statement	Daily	20	2	16
1.5	Maintenance of cheque register, cash book and pass books of all accounts	Daily	20	2	16
1.6	Reconciliation of all accounts	Monthly	1	180	3
1.7	Fixed deposits	Monthly	1	60	1
1.8	Salary, pension, PF etc., (all cash transactions) other correspondence	Daily	5	5	10
1.9	Maintenance of register of RTI, EMD, security deposit, Bank guarantee, petty cash book	Daily	2	5	4
1.10	Maintenance of Note files & Correspondence files	Weekly	2	15	2
Total Man hours in a month					182
Constant Allowances @ 11%					20.02
Total work content					202.02
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.48

Table No: 5.8

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ACCOUNTS)		
SECTION: A 2 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Consolidation of accounts & preparation of monthly and annual accounts	Monthly	21	120	42
1.2	Annual accounts- Receipts & Expenditure	Yearly	25	720	25
1.3	PF Closure	Yearly	6	180	1.5
1.4	Calculation of PF-NRA and temporary advance	Weekly	6	30	12
1.5	Preparation of PF credit slip	Yearly	300	8	3.33
1.6	Interest calculation of PF, HBA, MCA and scooter advance	Yearly	310	40	17.22
1.7	Management of registers relating to plan, non-plan and other projects, Govt. contributions	Monthly	26	60	26
1.8	Monthly plan progress report-Preparation and forward to Govt. within the specified time	Monthly	5	6	0.5
1.9	Maintenance of advance register	Weekly	1	15	1
1.10	Verification of DA arrear statement related to all offices including HO	Half Yearly	300	20	16.66
Total Man hours in a month					145.22
Constant Allowances @ 11%					15.97
Total work content					161.19
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.18

Table No: 5.9

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ACCOUNTS)		
SECTION: A 3 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	All payments related to pension	Monthly	96	10	16
1.2	Pension-Arrears of DR	Half Yearly	96	20	5.33
1.3	Pension contribution	Yearly	275	10	3.81
1.4	Verification of vouchers except DO Kannur, Wayanad, Kasaragod and Malappuram	Monthly	1000	6	100
1.5	Audit inspection	Yearly	16	720	16
1.6	Income tax filing-filing of pensioners	Quarterly	6	10	0.33
1.7	Pension contribution-Deputation staff	Yearly	10	10	0.13
1.8	Audit reports (Internal Audit)	Yearly	16	720	16
1.9	DCRG, Commutation calculation (Pension)	Yearly	1	180	0.25
Total Man hours in a month					157.87
Constant Allowances @ 11%					17.36
Total work content					175.24
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.28

Table No: 5.10

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ACCOUNTS)		
SECTION: A 4 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Remitting of DD and maintenance of DD register	Weekly	6	60	24
1.2	Maintenance of ledger HO	Daily	10	3	12
1.3	Monthly remittance in respect of deputation staff and maintenance if its register	Monthly	55	10	9.16
1.4	Preparation of monthly statements of the receipt and payment related to HO	Monthly	1	120	2
1.5	Preparation of annual statement of receipts and payments related to HO	Yearly	6	360	3
1.6	Transfer credit of receipt from sub offices-verification and maintenance of register	Weekly	17	30	34
1.7	PF remittance	Monthly	300	3	15
1.8	Reconciliation of the Bank account-12135	Monthly	1	60	1
Total Man hours in a month					100.16
Constant Allowances @ 11%					11.01
Total work content					111.18
Man hours available per month/person					136
Present Strength					1
Number of persons Required					0.81

Table No: 5.11

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (ACCOUNTS)		
SECTION: A 5 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Issue of forms	Daily	20	2	16
1.2	Income tax calculation of the staff	Quarterly	75	30	12.5
1.3	Verification of the vouchers of subordinate offices, Kannur, Wayanad, Kozhikode, Kasaragod and Malappuram	Monthly	250	6	25
1.4	Internal and AG's audit	Yearly	17	720	17
1.5	Fund allotment	Quarterly	16	60	5.33
1.6	Govt. communication	Daily	5	20	40
1.7	E-filing of income tax data	Quarterly	35	10	1.94
1.8	Budget proposal preparation	Yearly	1	720	1
1.9	Grant-in-aid from Government	Quarterly	2	2160	24
1.10	Furnishing of replies to AG's audit	Monthly	5	30	2.5
Total Man hours in a month					145.27
Constant Allowances @ 11%					15.98
Total work content					161.25
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.18

CESS WING

Table No: 5.12

WORK MESUREMENT SHEET OF ASSISTANT IN HEAD OFFICE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT (CESS)		
SECTION: B 1, B2, B3 section			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequen cy (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
1.1	Tapal enter in register	Weekly	67	5	22.33
1.2	Tapal enter in PR	Weekly	67	5	22.33
1.3	Tapal sorting enclosed in correspondence file	Daily	8	15	48
1.4	Compare with previous WCR's	Daily	8	15	48
1.5	Assessment order calculation preparation and put up	Daily	8	30	96
1.6	Chelan with covering letter preparation and put up based on AO	Daily	8	15	48
1.7	Enter the period and Chelan amount in the remittance register	Daily	8	15	48
1.8	Enter the period and remittance amount, due date remittance date in the industrial register	Daily	8	15	48
1.9	Draft letter preparation addressed to the defaulted companies	Weekly	17	15	17
1.1	Fair copy of the letter addressed to the companies	Daily	6	5	12
1.11	Draft letter addressed to the EE, District Office	Weekly	17	15	17
1.12	Fair copy of the letter addressed to the EE, DO	Weekly	15	10	10
1.13	Dispatch	Daily	3	15	18
1.14	General Files	Weekly	20	30	40
Total Man hours in a month					494.66
Constant Allowances @ 11%					54.41
Total work content					549.08
Man hours available per month/person					136
Present Strength					3
Number of persons Required					4.037

Table No: 5.13

WORK MESUREMENT SHEET OF ASSISTANT IN ERNAKULAM RO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANTS		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	50	3	60
1.2	Dispatch Register	Daily	22	5	44
1.3	Register of deputation hands	Monthly	4	15	1
1.4	Stock register of stationery	Monthly	4	2	0.133
1.5	Stock register of furniture	Yearly	7	3	0.029
1.6	Casual Leave register	Monthly	7	3	0.35
1.7	Right to Information register (Separate)	Monthly	20	4	1.33
B	Allied Administrative Works				
1.8	Service book maintenance	Monthly	51	15	12.75
1.9	Communication with Employment Exchange	Yearly	2	120	0.333
1.1	Repair and maintenance of office equipments.	Monthly	2	20	0.666
1.11	Maintenance of Office building	Monthly	3	30	1.5
1.12	Communications through Telephones with various offices and Head Office	Monthly	60	2	2
1.13	Staff meeting with Head of the Department	Monthly	1	150	2.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	4	50	13.33
2.4	Salary or Pay Bill register	Monthly	1	120	2
2.5	DD register	Monthly	180	5	15
2.6	Cheque register	Daily	13	12	62.4
2.7	Acquittance register	Weekly	7	4	1.86
2.8	Stamp account register	Weekly	3	2	0.4
2.9	Temporary advance register	Monthly	3	5	0.25

B	Salary Bill Preparation				
2.1	Bill preparation and disbursement of salary	Monthly	51	40	34
2.11	TA bill preparation	Monthly	12	5	1
2.12	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	2	120	4
2.13	Remitting deduction from deputation staff	Monthly	4	30	2
2.14	Remitting income tax	Yearly	1	40	0.055
2.15	Medical reimbursement	Yearly	8	15	0.16
2.16	DA arrear bill preparation	Yearly	2	120	0.33
2.17	Fixation of pay revision arrear	Yearly	1	300	0.41
2.18	Profession tax remittance	Yearly	1	60	0.08
2.19	Surrendering of Earn leave	Yearly	8	25	0.27
2.20	Pension Preparation and disbursement	Monthly	1	150	2.5
C	Miscellaneous Accounts Works				
2.21	Preparation of vouchers	Daily	8	7	22.4
2.22	Communication with AG office	Yearly	18	6	0.15
2.23	Account verification of consent files	Daily	20	8	64
2.24	Preparation of cheque for contingency expenditure and encashment	Weekly	4	6	1.6
2.25	Bills of contract vehicles	Monthly	2	30	1
2.26	Remitting DD to banks	Daily	1	30	12
2.27	Letters forwarding to banks	Daily	1	12	4.8
2.28	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					393.62
Constant Allowances @ 11%					43.29
Total work content					436.92
Man hours available per month/person					136
Present Strength					3
Number of persons Required					3.21

WORK MESUREMENT SHEET OF ASSISTANT IN KOZHIKODE RO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANTS		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	40	3	48
1.2	Dispatch Register	Daily	18	5	36
1.3	Register of deputation hands	Monthly	3	2	0.1
1.4	Stock register of stationery	Monthly	5	3	0.25
1.5	Stock register of furniture	Yearly	12	3	0.05
1.6	Casual Leave register	Monthly	8	3	0.4
1.7	Right to Information register (Separate)	Monthly	15	4	1
B	Allied Administrative Works				
1.8	Service book maintenance	Monthly	30	15	7.5
1.9	Communication with Employment Exchange	Yearly	2	120	0.33
1.1	Repair and maintenance of office equipments.	Monthly	2	20	0.66
1.11	Maintenance and rent payment of office building	Monthly	4	30	2
1.12	Fair copying of letters	Daily	5	15	30
1.13	Communications through Telephone with various offices and Head Office	Monthly	60	2	2
1.14	Staff meeting with Head of the Department	Monthly	1	150	2.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	2	50	6.66
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	14	5	28
2.6	Cheque register	Daily	8	12	38.4
2.7	Acquittance register	Weekly	8	4	2.13
2.8	Stamp account register	Weekly	3	2	0.4
B	Salary Bill Preparation				

2.9	Bill preparation and disbursement of salary	Monthly	30	40	20
2.1	TA bill preparation	Monthly	6	5	0.5
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	4	120	8
2.12	Remitting deduction from deputation staff	Monthly	2	30	1
2.13	Remitting income tax	Yearly	1	40	0.05
2.14	Medical reimbursement	Yearly	3	15	0.06
2.15	DA arrear bill preparation	Yearly	2	120	0.33
2.16	Fixation of pay revision arrear	Yearly	1	300	0.41
2.17	Profession tax remittance	Yearly	2	60	0.16
2.18	Surrendering of Earn leave	Yearly	5	25	0.17
2.19	Pension Preparation and disbursement	Monthly	1	150	2.5
C	Miscellaneous Accounts Works				
2.20	Preparation of vouchers	Daily	7	7	19.6
2.21	Communication with AG office	Yearly	15	6	0.125
2.22	Account verification of consent files	Daily	22	8	70.4
2.23	Preparation of cheque for contingency expenditure and encashment	Weekly	2	6	0.8
2.24	Bills of contract vehicles	Monthly	2	30	1
2.25	Remitting DD to banks	Daily	1	30	12
2.26	Letters forwarding to banks	Daily	1	12	4.8
2.27	Consolidated receipt and payment report preparation	Monthly	1	180	0
Total Man hours in a month					368.33
Constant Allowances @ 11%					40.51
Total work content					408.85
Man hours available per month/person					136
Present Strength					3
Number of persons Required					3.00

Table No: 5.15

WORK MESUREMENT SHEET OF ASSISTANT IN CL					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANTS		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours Per Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	15	3	18
1.2	Dispatch Register	Daily	10	5	20
1.3	Distribution Register	Daily	15	15	90
1.4	Register of deputation hands	Monthly	2	2	0.06
1.5	Stock register of stationery	Monthly	2	3	0.1
1.6	Stock register of furniture	Yearly	12	3	0.05
1.7	Local delivery register	Daily	3	3	3.6
1.8	Casual Leave register	Weekly	12	3	2.4
B	Allied Administrative Works				
1.9	Service book maintenance	Monthly	26	15	6.5
1.10	Communication with Employment Exchange	Yearly	12	120	2
1.11	Posting of attendee for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.12	Repair and maintenance of office equipments.	Monthly	20	20	6.66
1.13	Communications with various offices and Head Office	Monthly	50	2	1.66
1.14	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Weekly	3	5	1
2.6	Cheque register	Weekly	3	12	2.4
2.7	Acquittance register	Monthly	4	4	0.26
2.8	Stamp account register	Daily	1	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	34	40	22.66
2.1	TA bill preparation	Monthly	8	5	0.66

2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting deduction from deputation staff	Monthly	2	30	1
2.13	Remitting income tax	Yearly	1	40	0.05
2.14	Medical reimbursement	Yearly	12	15	0.25
2.15	DA arrear bill preparation	Yearly	2	120	0.33
2.16	Fixation of pay revision arrear	Yearly	1	300	0.41
2.17	Profession tax remittance	Yearly	2	60	0.16
2.18	Surrendering of Earn leave	Yearly	26	25	0.90
2.19	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.2	Preparation of vouchers	Daily	10	7	28
2.21	Communication with AG office	Yearly	24	6	0.2
2.22	Account verification of consent files (Lab Approval)	Daily	2	8	6.4
2.23	Preparation of cheque/DD for contingency expenditure and encashment	Weekly	8	6	3.2
2.24	Bills of contract vehicles	Monthly	1	30	0.5
2.25	Remitting DD to banks	Daily	1	50	20
2.26	Letters forwarding to banks	Daily	1	12	4.8
2.27	Consolidated receipt and payment report preparation	Monthly	1	180	3
2.28	Promotion Arrear & Increment Arrear	Monthly	2	10	0.33
Total Man Hours in a Month					293.71
Constant Allowances @ 11%					32.30
Total work content					326.02
Man hours available per month/person					136
Present Strength					2
Number of persons Required					2.39

Table No: 5.16

WORK MESUREMENT SHEET OF ASSISTANT IN ELOOR SURVEILLANCE CENTRE					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl. No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	18	3	21.6
1.2	Dispatch Register	Daily	8	5	16
1.3	Stock register of stationery	Monthly	8	2	0.26
1.4	Stock register of furniture	Yearly	7	3	0.029
1.5	Attendance Register	Daily	1	2	0.8
1.6	Casual Leave register	Monthly	8	3	0.4
1.7	Right to Information register (Separate)	Monthly	30	4	2
B	Allied Administrative Works				
1.8	Service book maintenance	Monthly	15	15	3.75
1.9	Communication with Employment Exchange	Yearly	2	120	0.33
1.1	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.11	Repair and maintenance of office equipments.	Monthly	2	20	0.66
1.12	Maintenance and rent payment of office building	Monthly	1	40	0.66
1.13	Communications through Telephone with various offices and Head Office	Monthly	40	2	1.33
1.14	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	4	50	13.33
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	8	5	16
2.6	Cheque register	Daily	5	12	24
2.7	Acquittance register	Weekly	7	4	1.86

2.8	Stamp account register	Weekly	1	2	0.13
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	21	40	14
2.1	TA bill preparation	Monthly	7	5	0.58
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	Medical reimbursement	Yearly	3	15	0.06
2.14	DA arrear bill preparation	Yearly	2	120	0.33
2.15	Fixation of pay revision arrear	Yearly	1	300	0.41
2.16	Profession tax remittance	Yearly	1	60	0.08
2.17	Surrendering of Earn leave	Yearly	5	25	0.17
2.18	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.19	Preparation of vouchers	Daily	2	7	5.6
2.2	Communication with AG office	Yearly	18	6	0.15
2.21	Account verification of consent files	Daily	8	8	25.6
2.22	Preparation of cheque for contingency expenditure and encashment	Weekly	4	6	1.6
2.23	Bills of contract vehicles	Monthly	1	30	0.5
2.24	Remitting DD to banks	Daily	1	30	12
2.25	Letters forwarding to banks	Daily	1	12	4.8
2.26	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					197.77
Constant Allowances @ 11%					21.75
Total work content					219.53
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.6

Table No: 5.17

WORK MESUREMENT SHEET OF ASSISTANT IN THIRUVANANTHAPURAM DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
I	<u>Administration of the Office</u>				
A	<u>Register Maintenance</u>				
1.1	Inward Register	Daily	19	3	22.8
1.2	Dispatch Register	Daily	43	5	86
1.3	Casual Leave register	Monthly	20	3	1
1.4	Right to Information Register (Separate)	Monthly	20	4	1.33
B	<u>Allied Administrative Works</u>				
1.5	Service book maintenance	Monthly	19	15	4.75
1.6	Communication with Employment Exchange	Yearly	1	120	0.16
1.7	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.8	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.9	Communications through Telephone with various offices and Head Office	Monthly	45	2	1.5
1.10	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	<u>Accounts of the office</u>				
A	<u>Register Maintenance</u>				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	1	5	2

2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Monthly	1	4	0.06
2.8	Stamp account register	Weekly	1	2	0.13
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	20	40	13.33
2.1	TA bill preparation	Monthly	1	5	0.08
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	DA arrear bill preparation	Yearly	2	120	0.33
2.14	Fixation of pay revision arrear	Yearly	1	300	0.41
2.15	Profession tax remittance	Yearly	2	60	0.16
2.16	Surrendering of Earn leave	Yearly	8	25	0.27
				Sub Total	16.66
C	Miscellaneous Accounts Works				
2.17	Preparation of vouchers	Daily	3	7	8.4
2.18	Communication with AG office	Yearly	2	6	0.01
2.19	Preparation of cheque for contingency expenditure and encashment	Weekly	3	6	1.2
2.2	Bills of contract vehicles	Monthly	1	30	0.5
2.21	Remitting DD to banks	Daily	1	30	2
2.22	Letters forwarding to banks	Monthly	1	12	0.2
2.23	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					198.67
Constant Allowances @ 11%					21.85
Total work content					220.52
Man hours available per month/person					136
Present Strength					2
Number of persons Required					1.62

Table No: 5.18

WORK MESUREMENT SHEET OF ASSISTANT IN KOLLAM DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	19	3	22.8
1.2	Dispatch Register	Daily	13	5	26
1.3	Distribution Register	Daily	1	15	6
1.4	Stock register of stationery	Monthly	20	2	0.66
1.5	Stock register of furniture	Yearly	12	3	0.05
B	Allied Administrative Works				
1.6	Service book maintenance	Monthly	19	15	4.75
1.7	Communication with Employment Exchange	Yearly	1	120	0.166
1.8	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.9	Repair and maintenance of office equipments.	Monthly	1	20	0.33
1.10	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.11	Communications through Telephone with various offices and Head Office	Monthly	50	2	1.66
1.12	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				

2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	20	5	40
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	4	4	1.06
B	Salary Bill Preparation				
2.8	Bill preparation and disbursement of salary	Monthly	19	40	12.6
2.9	TA bill preparation	Monthly	3	5	0.25
2.1	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.11	Remitting deduction from deputation staff	Monthly	4	30	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	DA arrear bill preparation	Yearly	2	120	0.33
2.14	Fixation of pay revision arrear	Yearly	1	300	0.41
2.15	Profession tax remittance	Yearly	2	60	0.16
2.16	Surrendering of Earn leave	Yearly	4	25	0.13
C	Miscellaneous Accounts Works				
2.17	Preparation of vouchers	Daily	2	7	5.6
2.18	Preparation of cheque for contingency expenditure and encashment	Weekly	5	6	2
2.19	Bills of contract vehicles	Monthly	1	30	0.5
2.20	Remitting DD to banks	Daily	1	30	2
2.21	Letters forwarding to banks	Daily	1	12	4.8
2.22	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					186.36
Constant Allowances @ 11%					20.500
Total work content					206.86
Man hours available per month/person					136
Present Strength					2
Number of persons Required					1.52

Table No: 5.19

WORK MESUREMENT SHEET OF ASSISTANT IN PATHANAMTHITTA DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time(In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	25	3	30
1.2	Dispatch Register	Daily	10	5	20
1.3	Distribution Register	Daily	1	15	6
1.4	Register of Deputation hands	Monthly	2	2	0.066
1.5	Stock register of stationery	Monthly	16	2	0.533
1.6	Stock register of furniture	Yearly	10	3	0.041
1.7	Local Delivery Register	Daily	2	3	2.4
1.8	Casual Leave register	Monthly	5	3	0.25
1.9	Right to Information Register (Separate)	Monthly	10	4	0.666
B	Allied Administrative Works				
1.10	Service book maintenance	Monthly	14	15	3.5
1.11	Communication with Employment Exchange	Yearly	1	120	0.166
1.12	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.138
1.13	Repair and maintenance of office equipments.	Monthly	2	20	0.666
1.14	Maintenance and rent payment of office building	Monthly	2	30	1
1.15	Communications through Telephone with various offices and Head Office	Monthly	40	2	1.333
1.16	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	2	50	6.666
2.4	Salary register	Monthly	5	120	10

2.5	DD register	Daily	5	5	10
2.6	Cheque register	Daily	3	12	14.4
2.7	Acquittance register	Weekly	4	4	1.066
2.8	Stamp account register	Weekly	2	2	0.266
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	14	40	9.333
2.10	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.11	Remitting income tax	Yearly	1	40	0.055
2.12	Medical reimbursement	Yearly	2	15	0.041
2.13	DA arrear bill preparation	Yearly	1	120	0.166
2.14	Profession tax remittance	Yearly	2	60	0.166
2.15	Surrendering of Earn leave	Yearly	4	25	0.138
2.16	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.17	Preparation of vouchers	Daily	5	7	14
2.18	Communication with AG office	Yearly	2	6	0.016
2.19	Account verification of consent files	Daily	8	8	25.6
2.20	Bills of contract vehicles	Monthly	2	30	1
2.21	Remitting DD to banks	Daily	1	30	12
2.22	Letters forwarding to banks	Daily	1	12	4.8
2.23	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man Hours in a month					202.98
Constant Allowances @ 11%					22.328
Total work content					225.31
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.65

Table No: 5.20

WORK MESUREMENT SHEET OF ASSISTANT IN ALAPPUZHA DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANTS		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Minutes Per Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	22	3	26.4
1.2	Dispatch Register	Daily	15	5	30

1.3	Distribution Register	Daily	1	10	4
1.4	Stock register of stationery	Monthly	7	3	0.35
1.5	Stock register of furniture	Yearly	9	2	0.025
1.6	Attendance Register	Daily	1	2	0.8
1.7	Casual Leave register	Monthly	6	3	0.3
1.8	Right to Information register (Separate)	Monthly	15	4	1
B	Allied Administrative Works				
1.9	Service book maintenance	Monthly	17	15	4.25
1.1	Communication with Employment Exchange	Yearly	2	120	0.333
1.11	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.138
1.12	Repair and maintenance of office equipments.	Monthly	4	20	1.33
1.13	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.14	Communications through Telephone with various offices and Head Office	Monthly	55	2	1.83
1.15	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	2	70	2.33
2.5	DD register	Daily	14	4	22.4
2.6	Cheque register	Daily	4	12	19.2
2.7	Acquittance register	Weekly	7	4	1.866
2.8	Stamp account register	Weekly	2	2	0.266
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	17	40	11.333
2.1	TA bill preparation	Monthly	7	5	0.583
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.055

2.13	Medical reimbursement	Yearly	3	15	0.062
2.14	DA arrear bill preparation	Yearly	2	120	0.333
2.15	Fixation of pay revision arrear	Yearly	1	120	0.166
2.16	Profession tax remittance	Yearly	2	60	0.16
2.17	Surrendering of Earn leave	Yearly	8	25	0.277
2.18	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.19	Preparation of vouchers	Daily	4	7	11.2
2.2	Communication with AG office	Yearly	18	6	0.15
2.21	Account verification of consent files	Daily	8	8	25.6
2.22	Preparation of cheque for contingency expenditure and encashment	Weekly	4	6	1.6
2.23	Bills of contract vehicles	Monthly	1	30	0.5
2.24	Remitting DD to banks	Daily	1	30	12
2.25	Letters forwarding to banks	Daily	1	12	4.8
2.26	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					232.65
Constant Allowances @ 11%					25.59
Total work content					258.25
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.89

Table No: 5.21

WORK MESUREMENT SHEET OF ASSISTANT IN KOTTAYAM DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANTS		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours Per Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	20	3	24
1.2	Dispatch Register	Daily	10	5	20
1.3	Register of deputation hands	Monthly	3	15	0.75
1.4	Stock register of stationery	Monthly	4	2	0.133
1.5	Stock register of furniture	Yearly	7	2	0.019
1.6	Local delivery register	Daily	4	3	4.8

1.7	Casual Leave register	Monthly	2	3	0.1
1.8	Attendance Register	Daily	1	2	0.8
1.9	Right to Information register (Separate)	Monthly	10	4	0.666
B	Allied Administrative Works				
1.10	Service book maintenance	Monthly	18	15	4.5
1.11	Front Office maintenance	Daily	1	120	48
1.12	Communication with Employment Exchange	Yearly	2	120	0.333
1.13	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	2	100	0.277
1.14	Repair and maintenance of office equipments.	Monthly	3	20	1
1.15	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.16	Communications through Telephone with various offices and Head Office	Monthly	40	2	1.333
1.17	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	12	4.8
2.2	Ledger	Daily	1	15	6
2.3	Imprest Account & Petty Cash Book	Weekly	4	50	13.33
2.4	Salary register	Weekly	2	70	9.33
2.5	DD register	Daily	8	4	12.8
2.6	Cheque register	Daily	3	12	14.4
2.7	Acquittance register	Weekly	7	4	1.86
2.8	Stamp account register	Daily	1	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	18	40	12
2.1	TA bill preparation	Monthly	7	5	0.58
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting deduction from deputation staff	Monthly	2	30	1
2.13	Remitting income tax	Yearly	1	40	0.05
2.14	Medical reimbursement	Yearly	3	15	0.062

2.15	DA arrear bill preparation	Yearly	2	120	0.333	
2.16	Fixation of pay revision arrear	Yearly	1	120	0.166	
2.17	Profession tax remittance	Yearly	2	60	0.166	
2.18	Surrendering of Earn leave	Yearly	8	25	0.277	
2.19	Pension Preparation and disbursement	Monthly	1	120	2	
C	Miscellaneous Accounts Works					
	2.20	Preparation of vouchers	Daily	6	7	16.8
	2.21	Communication with AG office	Yearly	15	6	0.125
	2.22	Account verification of consent files	Daily	12	8	38.4
	2.23	Preparation of cheque for contingency expenditure and encashment	Weekly	5	6	2
	2.24	Bills of contract vehicles	Monthly	1	30	0.5
	2.25	Remitting DD to banks	Daily	1	30	12
	2.26	Letters forwarding to banks	Daily	1	12	4.8
	2.27	Consolidated receipt and payment report preparation	Monthly	1	180	3
	Total Man hours in a month					268.31
Constant Allowances @ 11%					29.51	
Total work content					297.83	
Man hours available per month/person					136	
Present Strength					2	
Number of persons Required					2.18	

Table No: 5.22

WORK MESUREMENT SHEET OF ASSISTANT IN IDUKKI DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Total Man Hours Per Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	15	3	18
1.2	Dispatch Register	Daily	10	5	20
1.3	Distribution Register	Daily	1	15	6
1.4	Register of Deputation hands	Monthly	2	2	0.06

1.5	Stock register of stationery	Monthly	4	2	0.13
1.6	Local Delivery Register	Daily	1	3	1.2
1.7	Right to Information Register (Separate)	Monthly	4	4	0.26
B	Allied Administrative Works				
1.8	Service book maintenance	Monthly	14	15	3.5
1.9	Communication with Employment Exchange	Yearly	1	120	0.16
1.1	Repair and maintenance of office equipments.	Monthly	5	20	1.66
1.11	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.12	Communications through Telephone with various offices and Head Office	Monthly	30	2	1
1.13	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	4	50	13.33
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	4	5	8
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	4	4	1.06
2.8	Stamp account register	Weekly	6	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	14	40	9.33
2.1	TA bill preparation	Monthly	2	5	0.16
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	Medical reimbursement	Yearly	1	15	0.02
2.14	DA arrear bill preparation	Yearly	1	120	0.16
2.15	Fixation of pay revision arrear	Yearly	1	300	0.41
2.16	Profession tax remittance	Yearly	2	60	0.16
2.17	Surrendering of Earn leave	Yearly	8	25	0.27

2.18	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.19	Preparation of vouchers	Daily	2	7	5.6
2.2	Communication with AG office	Yearly	12	6	0.1
2.21	Account verification of consent files	Daily	4	8	12.8
2.22	Preparation of cheque for contingency expenditure and encashment	Weekly	1	6	0.4
2.23	Bills of contract vehicles	Monthly	1	30	0.5
2.24	Remitting DD to banks	Daily	1	30	12
2.25	Letters forwarding to banks	Daily	1	12	4.8
2.26	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					155.80
Constant Allowances @ 11%					17.13
Total work content					172.94
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.27

Table No: 5.23

WORK MESUREMENT SHEET OF ASSISTANT IN THRISSUR DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time (In Min)	Totalman Hours Per Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	18	3	21.6
1.2	Dispatch Register	Daily	10	5	20
1.3	Distribution Register	Daily	1	15	6
1.4	Stock register of stationery	Monthly	12	2	0.4
1.5	Stock register of furniture	Yearly	12	3	0.05
1.6	Local Delivery Register	Daily	1	3	1.2
1.7	Casual Leave register	Monthly	1	3	0.05

1.8	Right to Information Register (Separate)	Monthly	15	4	1
B	Allied Administrative Works				
1.9	Service book maintenance	Monthly	18	15	4.5
1.10	Communication with Employment Exchange	Yearly	1	120	0.16
1.11	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.12	Repair and maintenance of office equipments.	Monthly	4	20	1.33
1.13	Maintenance and rent payment of office building	Monthly	4	30	2
1.14	Communications through Telephone with various offices and Head Office	Monthly	55	2	1.83
1.15	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	2	50	6.66
2.4	Salary register	Monthly	3	120	6
2.5	DD register	Daily	1	5	2
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	2	4	0.53
2.8	Stamp account register	Weekly	6	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	18	40	12
2.1	TA bill preparation	Monthly	1	5	0.08
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	Medical reimbursement	Yearly	2	15	0.04
2.14	DA arrear bill preparation	Yearly	1	120	0.16
2.15	Fixation of pay revision arrear	Yearly	1	300	0.41

2.16	Profession tax remittance	Yearly	2	60	0.16
2.17	Surrendering of Earn leave	Yearly	7	25	0.24
2.18	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.19	Preparation of vouchers	Daily	5	7	14
2.2	Account verification of consent files	Daily	8	8	25.6
2.21	Preparation of cheque for contingency expenditure and encashment	Weekly	2	6	0.8
2.22	Bills of contract vehicles	Monthly	2	30	1
2.23	Remitting DD to banks	Daily	1	30	12
2.24	Letters forwarding to banks	Daily	1	12	4.8
2.25	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					178.94
Constant Allowances @ 11%					19.68
Total work content					198.62
Man hours available per month/person					136
Present Strength					1
Number of persons Required					1.46

Table No: 5.24

WORK MESUREMENT SHEET OF ASSISTANT IN PALAKKAD DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time(In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	25	3	30
1.2	Dispatch Register	Daily	15	5	30
1.3	Distribution Register	Daily	1	15	6
1.4	Register of Deputation hands	Yearly	4	2	0.01
1.5	Stock register of stationery	Monthly	15	2	0.5
1.6	Stock register of furniture	Yearly	5	3	0.02
1.7	Casual Leave register	Monthly	4	3	0.2

1.8	Right to Information Register (Separate)	Monthly	25	4	1.66
B	Allied Administrative Works				
1.9	Service book maintenance	Monthly	19	15	4.75
1.10	Communication with Employment Exchange	Yearly	1	120	0.16
1.11	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.12	Repair and maintenance of office equipments.	Monthly	1	20	0.33
1.13	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.14	Communications through Telephone with various offices and Head Office	Monthly	60	2	2
1.15	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	4	50	13.33
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	5	5	10
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	4	4	1.06
2.8	Stamp account register	Weekly	2	2	0.26
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	19	40	12.66
2.10	TA bill preparation	Monthly	10	5	0.83
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	DA arrear bill preparation	Yearly	1	120	0.16
2.14	Fixation of pay revision arrear	Yearly	1	300	0.41
2.15	Profession tax remittance	Yearly	2	60	0.16
2.16	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				

2.17	Preparation of vouchers	Daily	2	7	5.6
2.18	Account verification of consent files	Daily	10	8	32
2.19	Preparation of cheque for contingency expenditure and encashment	Weekly	6	6	2.4
2.20	Bills of contract vehicles	Monthly	2	30	1
2.21	Remitting DD to banks	Daily	1	30	12
2.22	Letters forwarding to banks	Daily	1	12	4.8
2.23	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					206.35
Constant Allowances @ 11%					22.69
Total work content					229.05
Man hours available per month/person					136
Present Strength					2
Number of persons Required					1.68

Table No: 5.25

WORK MESUREMENT SHEET OF ASSISTANT IN MALAPPURAM DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time(In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	10	3	12
1.2	Dispatch Register	Daily	5	5	10
1.3	Distribution Register	Daily	1	15	6
1.4	Register of Deputation hands	Monthly	1	2	0.03
1.5	Stock register of stationery	Monthly	1	2	0.03
1.6	Stock register of furniture	Yearly	12	3	0.05
1.7	Local Delivery Register	Daily	1	3	1.2
1.8	Casual Leave register	Weekly	2	3	0.4
1.9	Right to Information Register (Separate)	Monthly	5	4	0.33
B	Allied Administrative Works				
1.10	Service book maintenance	Monthly	14	15	3.5
1.11	Communication with Employment Exchange	Yearly	1	120	0.16

1.12	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.13	Repair and maintenance of office equipments.	Monthly	1	20	0.33
1.14	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.15	Communications through Telephone with various offices and Head Office	Monthly	1	2	0.03
1.16	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	3	50	10
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	2	5	4
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	2	4	0.53
2.8	Stamp account register	Weekly	1	2	0.13
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	14	40	9.33
2.10	TA bill preparation	Monthly	10	5	0.83
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	2	40	0.11
2.13	Medical reimbursement	Yearly	12	15	0.25
2.14	DA arrear bill preparation	Yearly	1	120	0.16
2.15	Fixation of pay revision arrear	Yearly	1	300	0.41
2.16	Profession tax remittance	Yearly	2	60	0.16
2.17	Surrendering of Earn leave	Yearly	5	25	0.17
2.18	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.19	Preparation of vouchers	Daily	4	7	11.2
2.20	Communication with AG office	Yearly	1	6	0.00
2.21	Account verification of consent files	Daily	3	8	9.6

2.22	Preparation of cheque for contingency expenditure and encashment	Weekly	1	6	0.4
2.23	Bills of contract vehicles	Monthly	1	30	0.5
2.24	Remitting DD to banks	Daily	1	30	12
2.25	Letters forwarding to banks	Daily	1	12	4.8
2.26	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					108.5
Constant Allowances @ 11%					11.93
Total work content					120.43
Man hours available per month/person					136
Present Strength					1

Table No: 5.27

WORK MESUREMENT SHEET OF ASSISTANT IN KANNUR DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period	Frequency (In Nos.)	Unit Time(In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	5	3	6
1.2	Dispatch Register	Daily	3	5	6
1.3	Distribution Register	Daily	3	15	18
1.4	Register of Deputation hands	Monthly	1	2	0.03
1.5	Stock register of stationery	Monthly	12	2	0.4
1.6	Stock register of furniture	Yearly	1	3	0.00
1.7	Local Delivery Register	Daily	3	3	3.6
1.8	Casual Leave register	Monthly	2	3	0.1
1.9	Right to Information Register (Separate)	Monthly	6	4	0.4
B	Allied Administrative Works				
1.10	Service book maintenance	Monthly	1	15	0.25
1.11	Communication with Employment Exchange	Yearly	12	120	2

1.12	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.13	Repair and maintenance of office equipments.	Monthly	4	20	1.33
1.14	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.15	Communications through Telephone with various offices and Head Office	Monthly	120	2	4
1.16	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	3	120	6
2.5	DD register	Daily	1	5	2
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	3	4	0.8
2.8	Stamp account register	Weekly	6	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	1	40	0.66
2.1	TA bill preparation	Monthly	5	5	0.41
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	Medical reimbursement	Yearly	1	15	0.02
2.14	DA arrear bill preparation	Yearly	2	120	0.33
2.15	Fixation of pay revision arrear	Yearly	1	300	0.41
2.16	Profession tax remittance	Yearly	2	60	0.16
2.17	Surrendering of Earn leave	Yearly	7	25	0.24
2.18	Pension Preparation and disbursement	Monthly	1	120	2

Table No: 6.6

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: CALICUT REGIONAL OFFICE			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing in English	daily	15	5	30
2	Letter typing in Malayalam	daily	15	10	60
3	Right to information Act English	daily	2	15	12
4	Right to information Act Malayalam	daily	4	18	16
5	Notice	weekly	12	8	6.4
6	Legal file- report and Para- vise comments	weekly	3	15	3
7	Brief notes on Projects	monthly	1	60	24
8	consent orders, consent refusal order and consent variation order	daily	6	10	24
9	fair copying	daily	30	5	60
Sub total					235.40
Consent allowance @ 11%					25.89
Total Work content					261.29
Man hours available per month/ person					136.00
Number of person required					1.92

Table No: 6.7

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: CENTRAL LAB EKM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letters, proceedings, quotations, statements	daily	15	5	30.00
2	Malayalam letter typing	monthly	25	15	6.25
3	Certificate of Approval	monthly	4	15	1.00
4	Notes	monthly	7	10	1.17
5	legal sample draft	daily	10	10	40.00
6	Tender Notice	monthly	5	10	0.83
Sub total					79.25
Consent allowance @ 11%					8.72
Total Work content					87.97
Man hours available per month/ person					136.00
Number of person required					0.65

1.12	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly	1	100	0.13
1.13	Repair and maintenance of office equipments.	Monthly	4	20	1.33
1.14	Maintenance and rent payment of office building	Monthly	1	30	0.5
1.15	Communications through Telephone with various offices and Head Office	Monthly	120	2	4
1.16	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	3	120	6
2.5	DD register	Daily	1	5	2
2.6	Cheque register	Daily	1	12	4.8
2.7	Acquittance register	Weekly	3	4	0.8
2.8	Stamp account register	Weekly	6	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	1	40	0.66
2.1	TA bill preparation	Monthly	5	5	0.41
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	1	40	0.05
2.13	Medical reimbursement	Yearly	1	15	0.02
2.14	DA arrear bill preparation	Yearly	2	120	0.33
2.15	Fixation of pay revision arrear	Yearly	1	300	0.41
2.16	Profession tax remittance	Yearly	2	60	0.16
2.17	Surrendering of Earn leave	Yearly	7	25	0.24
2.18	Pension Preparation and disbursement	Monthly	1	120	2

C	Miscellaneous Accounts Works				
2.19	Preparation of vouchers	Daily	6	7	16.8
2.2	Communication with AG office	Yearly	12	6	0.1
2.21	Account verification of consent files	Daily	1	8	3.2
2.22	Preparation of cheque for contingency expenditure and encashment	Weekly	1	6	0.4
2.23	Bills of contract vehicles	Monthly	1	30	0.5
2.24	Remitting DD to banks	Daily	1	50	20
2.25	Letters forwarding to banks	Daily	1	12	4.8
2.26	Consolidated receipt and payment report preparation	Monthly	1	180	3
Total Man hours in a month					151.77
Constant Allowances @ 11%					16.69
Total work content					168.47
Man hours available per month/person					136
Present Strength					2
Number of persons Required					1.23

TABLE 5.28

WORK MEASUREMENT SHEET OF ASSISTANT IN KASARGOD DO					
DEPARTMENT: KSPCB			DESIGNATION: ASSISTANT		
SECTION: ADMINISTRATION & ACCOUNTS			SHIFT: GENERAL		
Sl.No	Activity/Description	Period(Daily/Weekly/Monthly/Yearly)	Frequency (In Nos.)	Unit Time(In Min)	Total Man Hours In A Month
I	Administration of the Office				
A	Register Maintenance				
1.1	Inward Register	Daily	14	3	16.8
1.2	Dispatch Register	Daily	9	5	18
1.3	Distribution Register	Daily	1	15	6
1.4	Stock register of stationery	Monthly	12	2	0.4
1.5	Stock register of furniture	Yearly	12	3	0.05
1.6	Local Delivery Register	Daily	1	3	1.2
1.7	Casual Leave register	Monthly	6	3	0.3
1.8	Right to Information Register (Separate)	Monthly	2	4	0.13

B	Allied Administrative Works				
1.9	Service book maintenance	Monthly	2	15	0.5
1.1	Communication with Employment Exchange	Yearly	2	120	0.33
1.11	Posting of attender for NAMP-Publication of vacancy in newspapers, Arrangement for interview, Recommending to Head Office for posting.	Yearly		100	0
1.12	Repair and maintenance of office equipments.	Monthly	5	20	1.66
1.13	Maintenance and rent payment of office building	Monthly	1	40	0.66
1.14	Communications through Telephone with various offices and Head Office	Monthly	50	2	1.66
1.15	Staff meeting with Head of the Department	Monthly	1	90	1.5
II	Accounts of the office				
A	Register Maintenance				
2.1	Cash Book	Daily	1	25	10
2.2	Ledger	Daily	1	20	8
2.3	Imprest Account & Petty Cash Book	Weekly	6	50	20
2.4	Salary register	Monthly	1	120	2
2.5	DD register	Daily	3	5	6
2.6	Cheque register	Daily	3	12	14.4
2.7	Acquittance register	Weekly	3	4	0.8
2.8	Stamp account register	Weekly	6	2	0.8
B	Salary Bill Preparation				
2.9	Bill preparation and disbursement of salary	Monthly	15	40	10
2.1	TA bill preparation	Monthly	2	5	0.16
2.11	Preparing schedules-EPF, GIS, HBA, FA, GPF, SLI	Monthly	1	120	2
2.12	Remitting income tax	Yearly	2	40	0.11
2.13	DA arrear bill preparation	Yearly	4	120	0.66
2.14	Fixation of pay revision arrear	Yearly	1	300	0.41
2.15	Profession tax remittance	Yearly	2	60	0.16
2.16	Surrendering of Earn leave	Yearly	4	25	0.13
2.17	Pension Preparation and disbursement	Monthly	1	120	2
C	Miscellaneous Accounts Works				
2.18	Preparation of vouchers	Daily	2	7	5.6
2.19	Communication with AG office	Yearly	1	6	0.00
2.20	Preparation of cheque for contingency expenditure and encashment	Weekly	3	6	1.2
2.21	Bills of contract vehicles	Monthly	2	30	1
2.22	Remitting DD to banks	Daily	1	30	12
2.23	Letters forwarding to banks	Daily	1	12	4.8

2.24	Consolidated receipt and payment report preparation	Monthly	1	180	3
2.25	Computer and vehicle correspondence	Monthly	4	30	2
2.26	Expenditure statement	Monthly	1	60	1
2.27	Deduction statement of regular staff	Monthly	3	30	1.5
Total Man hours in a month					154.4
Constant Allowances @ 11%					9
					16.99
Total work content					171.4
Man hours available per month/person					8
Present Strength					136
Number of persons Required					1
					1.26

WORK MEASUREMENT TABLES OF **TYPISTS**

From: - Table No: 6.1

To: - Table No: 6.22

Table No: 6.1

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: HO TVM			SHIFT: GENERAL		
Sl.No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	Daily	15	5	30.00
2	Letter typing Malayalam	Daily	20	10	80.00
3	Typing of Report on Court Cases	weekly	8	45	24.00
4	Typing of Consent to Operate, Consent to Establish, Consent to Operate renewal, consent to Establish Renewal	monthly	30	20	10.00
5	Typing of Consent Refusal Intention Notice, closure intention notice, Refusal of consent	monthly	10	10	1.67
6	Typing of RTI Reports	monthly	6	15	1.50
7	Typing of Consent Variation order	monthly	20	10	3.33
8	Typing of Proceedings	weekly	12	15	12.00
9	Typing of U.O note	weekly	10	10	6.67
10	Typing of Minutes	monthly	20	5	1.67
Sub total					170.83
Consent allowance @ 11%					18.79
Total Work content					189.63
Man hours available per month/ person					136.00
Number of person required					1.39

Table No: 6.2

WORK MEASUREMENT SHEET					
Department: KSPCB			Designation: Typist		
Section: HO ACCOUNTS			Shift: General		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	15.00	5.00	30.00
2	Letter typing Malayalam	daily	5.00	10.00	20.00
3	Reports called from HO, RO	monthly	17.00	10.00	2.83
4	Typing of RTI Reports	monthly	10.00	15.00	2.50
5	Salary statement	monthly	1.00	60.00	1.00
6	Pension Statement	monthly	1.00	60.00	1.00
7	SLI(state Life Insurance) , GIS	monthly	2.00	30.00	1.00
8	Income Tax	daily	3.00	10.00	12.00
9	F.D statement	monthly	3.00	10.00	0.50
10	pension contribution statement	yearly	5	10.00	4.17
11	Pension DR Arrear statement	yearly	3	15.00	3.75
12	Grant in Aid	yearly	4.00	30.00	0.17
13	Audit Report	yearly	17.00	60.00	1.42
14	AG's Audit Paras	monthly	17.00	60.00	17.00
15	Statement for Expenditure & receipts	monthly	2.00	60.00	2.00
16	consolidate statement for Expenditure & receipts	monthly	2.00	60.00	2.00
17	Plan & Non Plan	monthly	20.00	2	40.00
18	Pension Slip	monthly	90.00	5.00	7.50
Sub total					148.83
Consent allowance @ 11%					16.37
Total Work content					165.21
Man hours available per month/ person					136.00
Number of person required					1.21

Table No: 6.3

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: ESTABLISHMENT HO TVM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	letter typing English	daily	10.00	5.00	20.00
2	letter typing Malayalam	daily	5.00	10.00	20.00
3	Typing of RTI reports	weekly	5.00	15.00	5.00
4	Proceedings English, Malayalam orders	daily	10.00	15.00	60.00
5	Mobile, Internet, Electricity bill	monthly	4.00	10.00	0.67
6	Professional Tax	yearly	2.00	60.00	0.17
7	water bill, rent	monthly	4.00	15.00	1.00
8	certificate, U.O note	daily	2.00	15.00	12.00
9	Quotation notice	monthly	2.00	20.00	0.67
10	pension contributions, U.O note	daily	3.00	15.00	18.00
11	salary slip, salary statement	monthly	100.00	5.00	8.33
	Sub total				145.83
	Consent allowance @ 11%				16.04
	Total Work content				161.88
	Man hours available per month/ person				136.00
	Number of person required				1.19

Table No: 6.4

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: RO TVM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	10	5	20.00
2	Letter typing Malayalam	weekly	3	10	2.00
3	Report on Court Cases	monthly	5	45	3.75
4	Consent to Operate	daily	2	15	12.00
5	Consent to Establish	daily	2	15	12.00
6	Consent to Operate Renewal	daily	1	10	4.00
7	Consent to Establish Renewal	daily	1	10	4.00
8	Consent Refusal Intention Notice	yearly	2	10	0.03
9	Closure Intention Notice	yearly	2	10	0.03
10	Refusal of Consent	yearly	1	10	0.01
11	Typing of RTI Reports	daily	2	15	12.00
12	Typing of Consent Variation order	monthly	2	10	0.33
Sub total					70.15
Consent allowance @ 11%					7.72
Total Work content					77.87
Man hours available per month/ person					136.00
Number of person required					0.57

Table No: 6.5

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: RO EKM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	25	5	50.00
2	Letter typing Malayalam	daily	3	10	12.00
3	Report on Court Cases	monthly	3	45	2.25
4	Consent to Operate	daily	5	15	30.00
5	Consent to Establish	weekly	8	15	8.00
6	Consent to Operate Renewal	weekly	8	10	5.33
7	Consent to Establish Renewal	weekly	6	10	4.00
8	Consent Refusal Intention Notice	monthly	2	8	0.27
9	Closure Intention Notice	monthly	1	5	0.08
10	Refusal of Consent	monthly	1	10	0.17
12	Daily report	daily	1	5	2.00
13	Reports called from HO/RO	monthly	2	5	0.17
14	Typing of RTI Reports	daily	2	15	12.00
16	Typing of Consent Variation order	monthly	3	10	0.50
17	Meeting minutes	monthly	6	5	0.50
	Sub total				127.27
	Consent allowance @ 11%				14.00
	Total Work content				141.27
	Man hours available per month/ person				136.00
	Number of person required				1.04

Table No: 6.6

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: CALICUT REGIONAL OFFICE			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing in English	daily	15	5	30
2	Letter typing in Malayalam	daily	15	10	60
3	Right to information Act English	daily	2	15	12
4	Right to information Act Malayalam	daily	4	18	16
5	Notice	weekly	12	8	6.4
6	Legal file- report and Paravise comments	weekly	3	15	3
7	Brief notes on Projects	monthly	1	60	24
8	consent orders, consent refusal order and consent variation order	daily	6	10	24
9	fair copying	daily	30	5	60
Sub total					235.40
Consent allowance @ 11%					25.89
Total Work content					261.29
Man hours available per month/ person					136.00
Number of person required					1.92

Table No: 6.7

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: CENTRAL LAB EKM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letters, proceedings, quotations, statements	daily	15	5	30.00
2	Malayalam letter typing	monthly	25	15	6.25
3	Certificate of Approval	monthly	4	15	1.00
4	Notes	monthly	7	10	1.17
5	legal sample draft	daily	10	10	40.00
6	Tender Notice	monthly	5	10	0.83
Sub total					79.25
Consent allowance @ 11%					8.72
Total Work content					87.97
Man hours available per month/ person					136.00
Number of person required					0.65

Table No: 6.8

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: ELOOR			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Typing of letters and consents	daily	12	10	48.00
2	Entry of consent details in various consent register	daily	15	3	18.00
3	Preparation of pending list, inventory of industries	monthly	10	5	0.83
4	Sending email to HO	daily	1	10	4.00
5	typing of report regarding biomedical waste	yearly	10	10	0.14
6	RTI typing	monthly	2	15	0.50
7	reports regarding Lok Sabha, Rajya Sabha, Legislative Committee etc	yearly	15	15	0.31
8	typing of monthly progress report	monthly	1	8	0.13
9	typing of annual reports under MSW Rules, BMW Rules, Battery Rules	yearly	6	15	0.13
Sub total					72.04
Constant allowance @ 11%					7.92
Total Work content					79.97
Man hours available per month/ person					136.00
Number of person required					0.59

Table No: 6.9

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: DO TVM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	yearly	752	5	5.22
2	Letter typing Malayalam	yearly	238	10	3.31
3	Report on Court Cases	yearly	102	45	6.38
4	Consent to Operate	yearly	752	15	15.67
5	Consent to Establish	yearly	357	15	7.44
6	Consent to Operate Renewal	yearly	198	10	2.75

7	Consent Refusal Intention Notice, closure intention notice, refusal of consent,	yearly	46	20	1.28
8	Typing of RTI Reports	yearly	142	15	2.96
9	typing of Verification Report	yearly	44	15	0.92
10	Salary bill schedule, etc	yearly	58	10	0.81
11	Typing of Consent Variation order	yearly	23	10	0.32
12	Reports	yearly	35	30	1.46
13	proceedings	yearly	91	15	1.90
14	MSW- V R	yearly	23	20	0.64
15	Minutes of Hearing	yearly	23	15	0.48
16	Industries progress report	yearly	23	20	0.64
17	Audit Enquiry and Event Award	yearly	25	20	0.69
18	Miscellaneous	yearly	87	10	1.21
Sub total					54.05
Consent allowance @ 11%					5.95
Total Work content					59.99
Man hours available per month/ person					136.00
Number of person required					0.44

Table No: 6.10

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: KOLLAM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	8	5	16
2	Letter typing Malayalam	daily	6	10	24
3	Report on Court Cases	monthly	2	45	1.5
4	Consent to Operate	daily	10	10	40
5	Consent to Establish	daily	8	10	32
6	Consent to Operate renewal	daily	4	8	12.8

7	Consent to Establish renewal	monthly	2	8	0.26
8	Consent refusal intention notice	monthly	2	8	0.26
9	Closure intention notice	monthly	4	8	0.53
10	Monthly report	monthly	1	15	0.25
11	Typing of RTI report	daily	2	10	8
12	Typing of Verification Report	monthly	4	8	0.53
13	Typing of consent verification order	monthly	6	8	0.8
14	Making of transparency to HO	daily	1	10	4
Sub total					140.95
Consent allowance @ 11%					15.50
Total Work content					156.45
Man hours available per month/ person					136.00
Number of person required					1.15

Table No: 6.11

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: PATHANAMTHITTA			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	Daily	10	5	20
2	Letter typing Malayalam	Daily	5	10	20
3	Report on Court Cases	Monthly	5	45	3.75
4	Consent to Operate	Weekly	20	10	13.33
5	Consent to Establish	Weekly	15	10	10
6	Consent to Operate Renewal	Weekly	20	10	13.33
7	Consent to Establish Renewal	Monthly	5	10	50
8	Consent Refusal Intention Notice	Monthly	10	10	8.33
9	Closure Intention Notice	Weekly	5	10	3.33

10	Refusal of Consent	Monthly	5	10	0.83
11	Monthly report	Monthly	5	15	1.25
12	Entry of consent details in various consent register	Daily	5	10	20
13	Reports called from HO/RO	Monthly	10	20	3.33
14	Stock file updating	Daily	1	15	6
15	Typing of RTI Reports	Monthly	20	15	5
16	Typing of Verification Report	Monthly	5	15	1.25
17	Typing of Consent Variation order	Monthly	5	15	1.25
Sub total					181
Consent allowance @ 11%					19.91
Total Work content					200.91
Man hours available per month/ person					136
Number of person required					1.48

Table No: 6.12

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: ALAPPUZHA			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Type ICO,ICE	daily	5	10	20.00
2	Court case , High court, human rights Commission	monthly	3	45	2.25
3	Ombudsman	monthly	2	45	1.50
4	Verification Report	monthly	5	15	1.25
5	Progress Report	monthly	1	8	0.13
6	Letters to the industries	daily	15	5	30.00
7	file register update	daily	15	3	18.00
8	Accept letters	monthly	4	5	0.33
9	Accept Minutes(Malayalam)	yearly	4	30	0.17
Sub total					73.63

	Consent allowance @ 11%	8.10
	Total Work content	81.73
	Man hours available per month/ person	136.00
	Number of person required	0.60

Table No: 6.13

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: KOTTAYAM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	5	5	8
2	Letter typing Malayalam	daily	6	10	24
3	Report on court cases	monthly	3	45	2.25
4	Consent to operate	daily	12	15	72
5	Consent to establish	daily	3	15	18
6	Consent to operate renewal	daily	18	10	72
7	Consent to establish renewal	yearly	2	10	0.02
8	Consent refusal intention notice	monthly	4	10	0.66
9	Closure intention notice	monthly	5	10	0.83
10	Refusal of consent	yearly	30	10	0.41
11	Closure order	yearly	5	10	0.06
12	Monthly report	monthly	1	60	1
13	Entry of consent details in various consent register	daily	15	3	18
14	Reports called from HO/RO	weekly	3	5	1
15	Stock file updating	daily	10	3	12
16	Show cause notice	yearly	3	5	0.02
17	Verification report	monthly	3	15	0.75
18	Front office	daily	1	60	24
19	Right To Information Act	daily	2	15	12
20	Consent variation order	monthly	4	10	0.66
	Sub total				267.70
	Consent allowance @ 11%				29.45
	Total Work content				297.15
	Man hours available per month/ person				136.00
	Number of person required				2.18

Table No: 6.14

CRITICAL PARAMETERS					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: IDUKKY			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	Monthly	112	5	9.33
2	Letter typing Malayalam	Monthly	47	15	11.75
3	Report on Court Cases	Monthly	1	45	0.75
4	Consent to Operate	Monthly	40	10	6.66
5	Consent to Establish	Monthly	5	10	0.83
6	Consent to Operate Renewal	Monthly	55	10	9.16
7	Consent to Establish Renewal	Monthly	5	10	0.83
8	Consent Refusal Intention Notice	Monthly	2	15	0.5
9	Closure Intention Notice	Monthly	1	10	0.16
10	Refusal of Consent	Monthly	3	10	0.5
11	Monthly report	Monthly	1	30	0.5
12	Entry of consent details in various consent register	Monthly	5	3	0.25
13	Reports called from HO/RO	Monthly	23	5	1.916
14	Stock file updating	Monthly	3	15	0.75
15	Typing of RTI Reports	Monthly	18	15	4.5
16	Typing of Verification Report	Monthly	6	15	1.5
17	Typing of Consent Variation order	Monthly	6	15	1.5
18	Water Analysis Charges	Monthly	37	20	12.33
19	Various Other notices	Monthly	27	20	9
20	Monthly Accounts	Monthly	1	60	1
21	Miscellaneous	Monthly	15	20	5
Sub total					78.75
Consent allowance @ 11%					8.66
Total Work content					87.41
Man hours available per month/ person					136.00
Number of person required					0.64

Table No: 6.15

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: DISTRICT OFFICE1 EKM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Verification Report	monthly	4	15	1.00
2	Letters	daily	13	10	52.00
3	consent to establish	daily	10	15	60.00
4	consent to operate	daily	10	15	60.00
5	Consent to Renewal	daily	3	10	12.00
6	Right To Information Act	monthly	10	15	2.50
7	public Hearing	monthly	2	15	0.50
8	Appellate Authority	monthly	2	5	0.17
9	consent variation order	monthly	4	10	0.67
Sub total					188.83
Consent allowance @ 11%					20.77
Total Work content					209.61
Man hours available per month/ person					136.00
Number of person required					1.54

Table No: 6.16

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: ERNAKULAM DO2			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	consent to operate	daily	8	15	48.00
2	consent to establish	daily	7	15	42.00
3	letters in English	daily	4	5	8.00
4	letters in Malayalam	daily	2	10	8.00
5	Right to Information Act	monthly	24	15	6.00
6	verification Report	monthly	3	15	0.75
7	Consent Variation Order	monthly	4	10	0.67
8	consent to establish-Renewal	daily	3	10	12.00
9	consent to operate-Renewal	daily	10	10	40.00
Sub total					165.42
Consent allowance @ 11%					18.20
Total Work content					183.61
Man hours available per month/ person					136.00
Number of person required					1.35

Table No: 6.17

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: THRISUR			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	15	5	30.00
2	Letter typing Malayalam	daily	8	10	32.00
3	Report on Court Cases	monthly	3	45	2.25
4	Consent to Operate	daily	6	10	24.00
5	Consent to Establish	daily	4	10	16.00
6	Consent to Operate Renewal	daily	5	10	20.00
7	Consent to Establish Renewal	daily	2	10	8.00
8	Consent Refusal Intention Notice	weekly	1	10	0.67
9	Closure Intention Notice	yearly	1	10	0.01
10	Refusal of Consent	monthly	2	10	0.33
11	Monthly report	monthly	1	15	0.25
12	Reports called from HO/RO	weekly	3	15	3.00
13	Typing of RTI Reports	daily	4	15	24.00
14	Typing of Verification Report	daily	3	15	18.00
15	Typing of Consent Variation order	weekly	2	15	2.00
Sub total					180.51
Consent allowance @ 11%					19.86
Total Work content					200.37
Man hours available per month/ person					136.00
Present strength					1.00
Number of person required					1.47

Table No: 6.18

WORK MEASUREMENT SHEET					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: DO PALAKKAD			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Drafting of consent				
a	Integrated consent to establish	Monthly	20	15	5.00
b	Integrated consent to operate	Monthly	33	15	8.25
c	Consent to operate -renewal	Monthly	60	10	10.00
d	consent to establish-Renewal	Monthly	1	10	0.17
2	Fair copy typing and taking print out of order				
a	Integrated consent to establish	Monthly	20	5	1.67
b	Integrated consent to operate	Monthly	33	5	2.75
c	Consent to operate -renewal	Monthly	60	5	5.00
d	consent to establish-Renewal	Monthly	1	5	0.08
3	Typing of Consent Variation Order	Monthly	20	10	3.33
4	Typing of establishment- pay bill d other attachments	Monthly	15	10	2.50
5	Typing of monthly consolidated statement	Monthly	1	20	0.33
6	Typing monthly report	Monthly	6	60	6.00
7	Typing of Administrative and technical letters	Monthly	100	10	16.67
8	Verification reports	Monthly	20	15	5.00
9	Letter typing Malayalam	Monthly	20	10	3.33
10	Report on court cases	Monthly	5	45	3.75
11	Typing of RTI Reports	Monthly	6	15	1.50
12	Consent refusal intention notice	Monthly	10	10	1.67
	Sub total				77.00
	Consent allowance @ 11%				8.47
	Total Work content				85.47
	Man hours available per month/ person				136.00
	Number of person required				0.63

Table No: 6.19

CRITICAL PARAMETERS					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: MALAPPURAM			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	Daily	5	5	10
2	Letter typing Malayalam	Daily	5	10	20
3	Report on Court Cases	Monthly	2	45	1.5
4	Consent to Operate	Daily	8	10	32
5	Consent to Establish	Daily	9	10	36
6	Consent to Operate Renewal	Monthly	4	10	0.66
7	Consent to Establish Renewal	Monthly	5	10	0.83
8	Consent Refusal Intention Notice	Daily	3	10	12
9	Closure Intention Notice	Weekly	1	10	0.66
10	Refusal of Consent	Weekly	1	10	0.66
11	Monthly report	Monthly	1	8	0.13
12	Entry of consent details in various consent register	Daily	4	10	16
13	Reports called from HO/RO	Daily	1	5	2
14	Stock file updating	Daily	15	3	18
15	Typing of RTI Reports	Weekly	5	15	5
16	Typing of Verification Report	Weekly	2	15	2
17	Typing of Consent Variation order	Weekly	2	5	0.66
	Sub total				158.13
	Consent allowance @ 11%				17.39
	Total Work content				175.52
	Man hours available per month/ person				136
	Number of person required				1.29

Table No: 6.20

CRITICAL PARAMETERS					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: WAYANAD			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	Daily	7	5	14
2	Letter typing Malayalam	Daily	8	10	32
3	Report on Court Cases	Monthly	2	45	1.5
4	Consent to Operate	Daily	5	10	20
5	Consent to Establish	Monthly	9	10	1.5
6	Consent to Operate Renewal	Daily	6	10	24
7	Consent to Establish Renewal	Daily	4	10	16
8	Consent Refusal Intention Notice	Daily	1	8	3.2
9	Closure Intention Notice	Monthly	5	5	0.41
10	Refusal of Consent	Monthly	4	5	0.33
11	Monthly report	Monthly	1	15	15
12	Entry of consent details in various consent register	Daily	15	3	18
13	Reports called from HO/RO	Daily	1	5	2
14	Stock file updating	Daily	8	3	9.6
15	Typing of RTI Reports	Monthly	4	15	1
16	Typing of Verification Report	Daily	2	15	12
17	Typing of Consent Variation order	Daily	3	10	12
Sub total					182.55
Consent allowance @ 11%					20.08
Total Work content					202.63
Man hours available per month/ person					136.00
Number of person required					1.49

Table No: 6.21

CRITICAL PARAMETERS					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: KANNUR			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	daily	10	5	20
2	Letter typing Malayalam	daily	8	10	32.00
3	Report on Court Cases	monthly	2	45	1.50
4	Consent to Operate	daily	5	10	20.00
5	Consent to Establish	daily	5	10	20.00
6	Consent to Operate Renewal	daily	5	8	16.00
7	Consent to Establish Renewal	daily	5	8	16.00
8	Consent Refusal Intention Notice	weekly	5	10	3.33
9	Closure Intention Notice	weekly	4	10	2.67
10	Refusal of Consent	monthly	4	10	0.67
11	Monthly report	monthly	1	15	0.25
12	Entry of consent details in various consent register	daily	1	3	1.20
13	Reports called from HO/RO	daily	6	5	12.00
14	Stock file updating	daily	1	3	1.20
15	Typing of RTI Reports	monthly	10	15	2.50
16	Typing of Verification Report	weekly	4	15	4.00
17	Typing of Consent Variation order	weekly	4	10	2.67
	Sub total				155.98
	Consent allowance @ 11%				17.16
	Total Work content				173.14
	Man hours available per month/ person				136.00
	Number of person required				1.27

Table No: 6.22

CRITICAL PARAMETERS					
DEPARTMENT: KSPCB			DESIGNATION: TYPIST		
SECTION: KASARAGOD			SHIFT: GENERAL		
Sl. No	Activity	Period	Frequency	Unit Time (In Mnts)	Total Man Hours Per Month
1	Letter typing English	Daily	10	5	20
2	Letter typing Malayalam	Daily	11	10	44
3	Report on Court Cases	Monthly	2	45	1.5
4	Consent to Operate	Daily	6	10	24
5	Consent to Establish	Daily	8	10	32
6	Consent to Operate Renewal	Daily	3	10	12
7	Consent to Establish Renewal	Monthly	1	10	0.16
8	Consent Refusal Intention Notice	weekly	4	10	2.66
9	Closure Intention Notice	Monthly	1	10	0.16
10	Refusal of Consent	Monthly	4	10	0.66
11	Monthly report	Monthly	5	15	1.25
12	First notice	Monthly	1	10	0.17
13	Reports called from HO/RO	weekly	6	5	2.00
14	Typing of RTI Reports	weekly	12	15	12.00
15	Typing of Verification Report	weekly	1	15	1.00
16	Typing of Consent Variation order	Monthly	2	15	0.5
Sub total					154.08
Consent allowance @ 11%					16.95
Total Work content					171.03
Man hours available per month/ person					136.00
Number of person required					1.26





**INSTITUTE OF MANAGEMENT IN GOVERNMENT (IMG)
THIRUVANANTHAPURAM-695033**