

Final Report

on

Workshops conducted for Training Need Assessment (TNA)

Submitted to



Public Health Engineering Department
Haryana


PTU's
GIAN JYOTI SCHOOL OF
TQM & ENTREPRENEURSHIP

PTU's First School of Excellence

B-102, Industrial Area, Phase-VIII, Mohali-160 059
Ph: 0172-2236187, 6541187, | e-mail: consultancy@tqmbizschool.org |
www.tqmbizschool.org

Table of Contents

Acknowledgement	ii
Executive Summary	iii
1. Introduction	1
2. Methodology Adopted	1
2.1 Organizational assessment	2
2.2 Occupational and Individual assessment	2
2.3 Preparation of Questionnaires for occupational and individual assessment.....	3
2.4 Assessment of training needs in a group.....	4
2.5 Based on the questionnaire by PHED	6
2.6 Selection of the Sample Size for TNA	7
3. Conducting the Workshops.....	9
4. Schedule of the Workshops	11
5. Training Needs Identified.....	12
5.1 XENs and Superintending Engineers.....	13
5.2 Sub Divisional Engineers	16
5.3 Junior Engineers.....	17
5.4 Ministerial staff.....	18
5.5 Field staff	21
5.6 Other findings:	22
6. Rationalization of Training Need topics and setting duration of each training	23
7. Annexure	

Acknowledgement

The exercise conducted over a period of 5 months, has not only provided us to interact with an organization which can best be described as a progressive, proactive but also provides an insight to what all an organization can achieve or strive to achieve when guided by a leadership that is oriented to growth, employee welfare & is customer oriented.

At the very outset we would like to offer our feelings of sincere gratitude to Mr. RK Singla, Chief Engineer, who provided us a task as challenging as this one which gave us a chance to benchmark our organization and even strive for excellence while carrying out the mammoth task.

The findings would have not been conclusive without the guidance of Mr. R.K.Singla, active and dynamic support of Mr. Rajiv Batish, EE (WSSO) who has been a catalyst in successful conduct of the various workshops and has been a shoulder to lean on during the process of analyzing the findings and preparation of the report. Also we appreciate the resource persons in the team of Mr. Rajiv Batish for their whole-hearted support.

This project would not have taken off without the active involvement of all the participants who not only form “need” the data; but also the backbone of the project.

The training needs identified above would now form the action plan for capacity building of the organization. We shall be looking forward to be part of the process and shall be too glad to provide necessary support.

Executive Summary

The key deliverable of the assignment was to conclude the training needs at various levels for employees of PHED, Haryana. All the needs were classified into five distinct categories as mentioned below:

1. Administrative and Information Management Skills- AIM
2. Accounting Systems- AS
3. Operational Efficiency- OE
4. Technical Skills- TS
5. Soft Skills- SS

The micro level details of the training to be conducted for various levels have been given in Annexure 11.1 to 11.15 The summary of the needs assessed along with the number of hours, rounded off to nearest hours, an employee has to be spared for the training is given below in the table.

S. No	Heads	Administrative and Information Management Skills- AIM	Accounting Systems- AS	Operational Efficiency- OE	Technical Skills- TS	Soft Skills- SS	Total
	Category						
1	SE	58	4	18	20	17	117
2	EE	64	4	14	32	22	136
3	SDEs	49	21	12	108	28	218
4	JE	86	15	8	84	18	211
5	Electrical	10	2	4	20	2	38
6	Driver	15	0	0	6	2	23
7	Fitter	14	0	4	19	2	39
8	Meter Reader	38	2	0	2	2	44
9	WPO	10	2	4	20	2	38
10	Sewerman	40	0	0	7	2	49
11	Store	38	4	4	0	0	46
12	Clerk	78	4	4	0	13	99
13	Dy. Suppt	89	4	4	2	7	106
14	HDM	50	0	47	24	11	132
15	Chemist	12	0	0	19	3	34

It is recommended that PHED, along with the service provider of the particular training need, may schedule the training programs over next two years for different level of employees depending upon the availability and constraints of the organization. The number of hours for each training program may also be further fine tuned by PHED based on the inputs of service provider and local needs of the organization.

Final Report on workshops conducted for carrying out Training Need Assessment (TNA) for PHED, Haryana

1. Introduction

Successful organisations lay emphasis on human resources. Human resources that can get the integration of all other resources synergised are known to have delivered results and have provided sustainable competitive advantage. Worldwide, systems are in place which is used to quantify the success of an organisation; yet the qualitative, i.e. the cognitive aspects of human resources, are those that actually make or break an organization.

Having stated the importance of human resources with right skills, ability and attitude, it won't be an exaggeration to state that training plays an important role in the development of human resources. To put the right man at the right place, assessing their training needs and having a well structured system of providing training that may be on the job training and/or off the job training are key ingredients to increase productivity, profitability, improve customer care as well as lead to personal growth and development of human resources of an organization. Therefore training has nowadays become an important and required factor for maintaining and improving interpersonal and intergroup collaboration. Nevertheless, in order to impart training the organisation must have in place systems to carry out training needs assessment to identify performance requirements and the knowledge, skills, and abilities of its human resources.

Realising the need to develop the human resources through training, PHED, Haryana rightly decided to first identify the training need across different cadres of the organization. PHED, Haryana approached PTU's Gian Jyoti School of TQM & Entrepreneurship (PGSTE), who have wide exposure in Consultancy and Training, to help them to devise methodology as well as conduct training need assessment right across all the cadres of the PHED. The exercise must end with identification of cadre wise topics of training, duration of training against each topic and working out a cadre wise schedule of training covering all employees.

A series of meetings were held between senior functionaries of WSSO, PHED and PGSTE to understand details of present PHED organization and objectives of TNA exercise. Proposal was moved by PGSTE on 15.10.2012 and TNA assignment was allotted to PGSTE on 23.10.2012.

2. Methodology Adopted

Exercise of Training Need Assessment by PGSTE for PHED, Haryana has been carried out on the following three major aspects.

- Organizational assessment

- Occupational and Individual assessment;
- Assessment of training needs in a group.

2.1 Organizational assessment

This has been carried out as a part of pre workshop activity to determine the need, objectives, understand the organisational structure and the target audience. **Other findings and information collected** during this pre workshop included

- Training Need Assessment work shop is being conducted as per the guidelines of Government of India
- Number of employees under various categories (refer **Annexure 1**).

This phase also led into **defining the objectives** of workshops to be conducted, as under

- Carry out an assessment for capacity building (for all categories of staff)
- Evolve a systematic program of continuous training (for all categories of staff)
- To identify training needs of the staff
- To prepare a training calendar for year 2013-2014
- To improve customer service
- To prepare staff for Citizen Centric Service Delivery

2.2 Occupational and Individual assessment

This examines the skills, knowledge, and abilities required for occupational groups. Occupational assessment identifies how and which occupational discrepancies or gaps exist. It also aims at examining new ways to do work that can eliminate the discrepancies or gaps. As a build up to this exercise, following groups were created during phase discussed under Section 2.1 above.

- Ministerial Staff
- Field Staff
- Junior Engineers
- SDEs
- Executive Engineers
- Superintending Engineers and above

In consultation with WSSO, it was decided to conduct the following **five workshops**.

- For the ministerial staff: One
- For senior officers including XENs, Superintending Engineers and Chief Engineers One

- For a homogenous mix of field staff, Junior Engineers and Sub Divisional Engineers. Three

In addition to above, schedule and number of participants in each workshop and their representation was also finalised. It's pertinent to mention here that the mix for each of five workshops was finalised considering that sufficient representation is there for all categories of staff in relation to their strength provided by WSSO.

2.3 Preparation of Questionnaires for occupational and individual assessment

Two type of questionnaire were developed.

First questionnaire was developed in the form of a **Task Assessment Questionnaire**.

Two separate assessment questionnaires were developed, one each for JEs and SDEs and above.

Sample blank formats are attached at **Annexure 2.1 & 2.2** for SDEs and above and JEs.

The Task Assessment Questionnaire (marked as Assessment Questionnaire) was designed to put forth open ended questions to seek certain detailed answers. It covered various aspects in addition to the training assessment too, and the due requirement of the PHED co-orienting officers was duly considered. The questions aimed at assessing certain emerging areas, emerging trends, response of the staff members to certain good practices adopted by PHED Haryana and even assess the perception of the participating members on absenteeism, delegation, assessment on the skill levels of the subordinates, areas and methods on which training has been provided earlier; and above all their own assessment for their own self on the areas on which they think they needs the training and at the same time identify key areas on which their subordinates would training.

Second one was a **multiple option questionnaire**. Four questionnaires were developed, one each for Ministerial Staff, Field Staff, Junior Engineers and SDEs and above.

Sample blank formats are attached at **Annexure 3.1 to 3.4**

These questionnaires form the backbone for carrying out the assessment at the individual level. These questionnaire were aimed at assessing soft skills that complement the technical skills, elevate the performance of an individual and bring to the fore his true strengths for the growth of an organisation; understand the perceptions or the thought processes that drive an individual; and to assess the effectiveness of the recent advancement that the organisation might have made.

For ease of understanding the questionnaire at lower level all questionnaires up to JEs level were developed in Hindi.

All questionnaires were submitted, deliberated upon and approved by WSSO, PHED.

Summary of questionnaires thus developed is given below. Copies of blank questionnaires are attached as indicated below.

For SDEs and above

1. Task Assessment Questionnaire
2. Multiple option questionnaire (for assessing soft skills and other related perceptions and checking effectiveness)

For JEs

1. Task Assessment Questionnaire
2. Multiple option questionnaire (for assessing soft skills and other related perceptions and checking effectiveness)

For Field Staff

1. Multiple option questionnaire (in Hindi)

For Ministerial Staff

1. Multiple option questionnaire (in Hindi)

2.4 Assessment of training needs in a group

Research in group dynamics indicates that more ideas are expressed by individuals in a group than when working alone. Working in a group is indeed an effective way of gathering a lot of ideas as it tends to ensure participation and input from all group members. Another important strategy thus adopted included allowing the participants at the workshop to be divided in small groups and be asked to carry out training need assessment for all categories across the board.

Groups of three, four, or five perform better on complex problem solving than the best of an equivalent number of individuals, said a study that appeared in the April 2006 issue of the Journal of Personality and Social Psychology, published by the American Psychological Association (APA). This finding since then has been used, transferred to scientific research teams and classroom problem solving and is known to have offered new ways for students to study and improve academic performance, according to the study authors. **The study has also highlighted that groups of two performed at the same level as the best of two individuals, suggesting that this group size was too small to introduce the necessary dynamics for optimal problem-solving.** However, since groups of three, four, and five were able to achieve the same results, the authors submit that groups of at least three are necessary and sufficient to perform better than the best of an

equivalent number of individuals on complex problems that require understanding of verbal, quantitative, or logical conceptual systems.

Understanding these systems are necessary skills for **scientific research teams, and the finding that groups perform better than the best of the same number of individuals may indicate that scientific research teams perform better than their members would perform alone.**

Based upon the findings, a session was planned where by the members would be asked to carry out the Training Need Assessment in a group.

Here is how it was conducted

1. The facilitator and the consultants gathered all participants and were now informed of the need to work in a group and each member was allocated a group. The methodology of forming the group is subsequently being discussed in Section 3. (each group had members from varied field and cadres)
2. Members in each group were given white sheet and markers/sketch pens.
3. The members were asked to write down their training needs. For carrying out the task in the group they were also briefed of certain other important aspects that included
 - For each category/cadres one sheet is to be used;
 - Members should write specific needs
 - They are free to suggest training needs for self and for other members of the group that may constitute just another category or the cadre.
 - They are free to suggest training needs that may encompass their field, technical needs, knowledge based, competency based, new area of work or technology etc
4. As they list the training needs, they were expected to put the best of the group activity to test; and looking at the training areas that they have been able to access. It is noteworthy to say that not only the participants rose to the occasion but also proved the above stated theory right.
5. After the completion of the sessions, the groups were invited back to the conference room; the sheets collected and stacked for each category. For example on Day 1, we had seven groups of the ministerial staff and all the sheet for all the groups were collected we had 7 set of sheets for Keyman, Asst. Draftsman, Clerk, Storekeeper, Chemist, Lab Attendant, SDC, Lab Attendants; and so forth. Same was true for the other days for other category of participants.
6. The senior staff of PHED and the consultants now had put up a white board and a blank white sheet for a particular category of the employee, let's say Chemists and the inputs from the seven sheets for the chemists so generated by the seven groups was shared and written on this blank sheet. The

participants were called to debate and discuss training areas thus emerging, and also, debate and suggest any other area (s) coming up during this joint session. Once the assessment of Training needs for Chemist was written on the sheet at the white board, the next category (for example-Lab Attendants) was picked up and the whole process as listed at this paragraph was repeated.

2.5 Based on the questionnaire by PHED

What makes an organisation more successful than another? What makes certain organisations have sustainable competitive advantages over competitors? Some may suggest and propagate better products, services, strategies, technologies or, perhaps, a better cost structure? No doubt, all of these contribute to superior performance. Nevertheless it is the work force, the people who are the real drivers for these factors. And when it comes to people, research has shown time and again that employees who are engaged significantly contribute in making the organisation outperform.

PHED prepared and administered a questionnaire which was not part of the training needs assessment activities planned by the consultants. Although most of the questions related to expected knowledge about their day to day work some of the questions were found relevant for training needs assessment and consultants have studied the same to find if any additional training need emerges. It is discussed in the paragraphs to follow by taking questionnaire administered to Ministerial Staff as an example.

In questionnaire prepared by PHED for the ministerial staff, a question included was to find out what drives the work forces and the following question was posed to the participants.

Q: What are the three factors that support work satisfaction among staff?

The responses from the ministerial staff have been tabulated below. 'Internal driven' are those work satisfaction areas which the respondent believes comes from inside and 'external - expected from others' are those areas which the respondent believes has to come from others. Following are the key areas that emerge as the **Work Satisfaction Factors**.

Internal driven

- Punctuality in office
- Do no put off till tomorrow what you can do today
- Be polite with your supervisor
- Honesty
- Faithful
- Cooperation with staff
- Good relation between staff

- Good behaviour
- Hard work is key of success
- Motivation
- Rewards
- Hard work
- Politeness
- Knowledge
- Good Manners
- Good communication
- Be social with them
- Guide them
- Knowledge of computer
- Positive thinking
- Listening skill

External – expected from others

- Team work
- Atmosphere of office campus
- Proper distribution of work
- Appreciation of good work

Some of the points mentioned by the ministerial staff (as tabulated above) show certain elements of their displayed behaviour e.g. **punctuality in office, do no put off till tomorrow what you can do today, good relations etc**; thus indicating that a sizeable section of the sample does feel that the work satisfaction is a function that comes from inside and that is what goes to drive an organisation.

It may be emphasized that wherever this questionnaire has helped to secure training needs assessment the same has been used and included in the outcome. However this point will not be discussed independently in this Report hereafter.

2.6 Selection of the Sample Size for TNA

Like any other investigation activity across the different strata of the population, the number of participants to be involved in the Training Need Assessment workshops were decided based on the total strength of the employees at given level. Certain level of employees was combined to economize the number of workshops to be conducted without sacrificing the quality of output. This was done jointly with inputs from PHED and WSSO Haryana.

A consideration has been given to the representation to all cadres/ and sections i.e zonal areas of Haryana while conducting the workshops. The micro level selection/identification of the individual staff members was carried out by the PHED/WSSO.

The data for no of employees under various categories was classified for workshops in the following manner. Sample size for each classification is also shown below:

S.No.	Category	Total Strength	Classification for Workshops	Sample Size
1	SE	24	24	5
2	EE	71	71	13
3	SDEs	164	164	12
4	JE	453	453	30
5	Electrical	627	10464	100
6	Driver	159		
7	Fitter	1647		
8	Meter Reader	92		
9	WPO	3773		
10	Sewerman/Keyman/ Patrolman/Chowkidar	4166		
11	Store	71	797	48
12	Clerk	222		
13	Dy. Suppt	348		
14	HDM	141		
15	Chemist	15		
	Total	11973	11973	208

3. Conducting the Workshops

Each work shops were conducted in five sessions that included

- Opening session - breaking the ice
- “How to fill the individual questionnaire (s)”
- Filling the questionnaires
- Formation of groups for group activity
- Group activity
- Training need assessment based on group activity

Opening session - breaking the ice:

PHED and WSSO had highlighted that for some of the participants this was the first time that they will be getting an opportunity of the following kind

- Exposure to be present at a forum where their inputs are being sought
- Ability to interact with the senior staff members
- An out of the office activity

And hence they may be required to be exposed to some motivational talk (s) also. The session included

- **Opening remarks** by Senior officers of the WSSO and PHED, where by the participants were made to understand the objective for the day, the importance of carrying out the Training Need Assessment, the role of each individual as a representative of his grade/ work area; the all important aspect of “to feel free”; and contribute their best to the inputs so desired later in the day.
- **A motivational talk** by the consultants. This covered
 - General aspects of daily experiences of personal and professional life
 - Short motivational stories
 - An interactive session where by the participants were given a chance to ask, express their opinion and share valuable thoughts with co-participants
 - The above activities were carried out with the use of Audio Video effects that also included presentation in power point and it is pertinent to mention here that considering the homogeneity of the group and various cadres involved the text in the power point presentation was both in English and Hindi languages.

Related photographs are attached as **Annexure 4, Plate 1 & 2.**

“How to fill the individual (multiple options) questionnaire (s)”:

This session though planned for 15 minutes, nevertheless was an important part of the whole exercise that exposed the participants to the questionnaire(s). Small parts of the questionnaire(s) were projected on the screen and the participants were explained on how to fill the same.

As discussed earlier certain sets of the questionnaire were in Hindi too. This session also brought forth the need to do “that extra bit”, as some of the participants were either not able to read and/or to write even in Hindi.

Filling the questionnaires:

Time reserved for this session was one hour. As discussed at 2.3 the questionnaires were distributed to the concerned staff and the participants now individually answered the questions.

Photographs of the sessions related to filling up of questionnaire in progress are attached at **Annexure 4, Plate 3, 4 and 5.**

Formation of groups for group activity:

Also through the group dynamics, the participants worked in small groups and were able to carry out assessment not only for self, but also for others in their own category and for other categories too. The productivity and the outcome of the group dynamics can be well judged from the fact that the result for the respective workshops were compiled and presented on the same day.

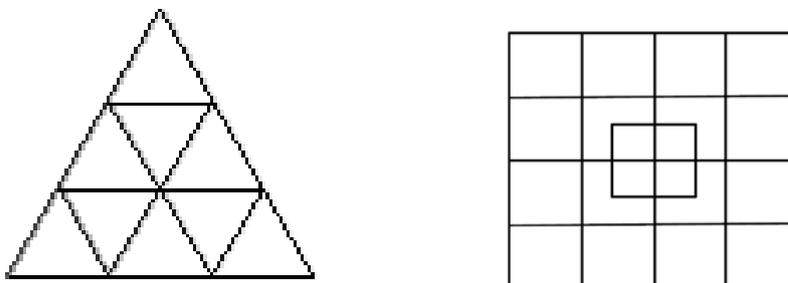
While the participants carried out the activity of filling the questionnaire(s), a simultaneous activity was carried out by the senior staff members of the PHED and WSSO, where by groups were formed. The rationale for forming small groups involved

- Participants to be divided in small groups to enable them to carry out group assessment
- No of participants to be around 6-7 per groups
- Thus the no of groups that would be formed would be 6/7
- The groups formed preferably should have representation from each cadre

Group activity:

This session was for 10 minutes with an intent that the members of a group are allowed to know each other and gel among themselves before an all important exercise Training Assessment in a Group be carried out. Here, each group was provided a sheet and made to work in a group. On day 1 and day 3, the exercise desired that members of each group find out the number of triangle in the following diagram. On day 2 and day 4, the exercise desired that members of each group find out the number of squares in the following grid.

It's pertinent the mention here that the exercise brought out the best of "informal group dynamism" where by "Storming", "Norming", "Performing"; "Agreeing" and not to forget " Resolving" were brought out in plenty, (as evident from the picture in **Annexure 4: Plate 6**), a perfect setting for the group to now move to the next level.



Training needs assessment based on group activity:

The groups were now required to carry out Training need assessment for all cadres in the group with no barriers what to ever on brain storming, i.e. a WTO could suggest a training need for a WPO or even for the SDO, and vice versa. The activity included the group to write the training needs for each category on a single sheet; i.e. if the group had members from 7 different categories namely SDO, JE, WPO, WTO, Driver, Store incharge, Bill distributor; the group was required to come out with seven sheets having listed the training needs of the members. **Annexure 4, Plate 7 to 9** show such sessions in progress.

The second part of the same exercise included compilation of the results of the various group and the presentation of the same to all the participants. The same was carried out by the senior staff of PHED and Consultants as shown in the picture at **Annexure 4, Plate 10 & 11**.

4. Schedule of the Workshops

With above defined methodology in place, five workshops were scheduled and conducted as detailed below

Date	Circles represented	Location	Category of the staff
Dec 10, 2012	All Circles	HIRD, Nilokheri	Ministerial Staff including Clerk, Deputy Superintendent, Head Clerk, Head Draftsman, Store Clerk, Chemist
Dec 11, 2012	Ambala, Ambala Mech., Yamunanagar, Karnal, Kaithal	HIRD, Nilokheri	SDE (Civil) / Mechanical, JE (Civil) / Mechanical & RME Staff

Dec 12, 2012	Gurgaon, Jhajjar, Palwal, Rohtak, Sonipat	HIRD, Nilokheri	SDE (Civil) / Mechanical, JE (Civil) / Mechanical & RME Staff
Dec 19, 2012	Bhiwani, Hisar, Jind, Rewari, Sirsa	HAU, Hisar	SDE (Civil) / Mechanical, JE (Civil) / Mechanical & RME Staff
Dec 28, 2012	Head Office, Circles	Head Office	Engineer in Chief, Chief Engineers, Superintending Engineers, and Executive Engineers

Category wise attendance of the five workshops is attached at **Annexure 5**.

Photographs related to holding of each workshop are enclosed as **Annexure 6**.

Inputs in the form of **number of filled up questionnaire** obtained from different categories of staff is tabulated below.

Category of the staff	No off
Superintending Engineers	5
XENs	13
SDEs	12
JEs	30
Field Staff	100
Ministerial Staff	48

5. Training Needs Identified

Analysis of Individual Assessment (IA):

Each question or a group of questions under each category of employee was linked to a specific training need. Questions related to a specific training need were randomly arranged to remove possible bias while filling up the questionnaires.

A sample of key converting the questions to specific training needs as well as grouping of questions is provided in **Annexure 7**.

It is considered that if 50% or more have responded positively to the requirement of a specific training need, the same can be considered to be applicable to majority or

universally to a specific group. Key findings, under various categories of employees, are given below. Results are provided in **Annexure 8.1 to 8.6**.

It is further observed that some of the training needs which fell below 50% category, and hence did not form part of training needs assessed under Individual Assessment, emerged during identification through Group Activity and thus are included under proposed topics for training.

Data related to training topics falling below 50% level have also been provided in **Annexure 9.1 to 9.6**. It is proposed that training on related topics can be considered on selective basis.

Identified as part of Group Activity (GA):

Here the results obtained from all the workshops for each category of the employees have been tabulated.

5.1 XENs and Superintending Engineers

5.1.1 Through Individual Assessment

While details are provided in **Annexure 8.1 and 8.2**, the same are summarized below. Data so suggested X % of SEs and Y% of XENs have identified following area as their training needs.

Training area	SEs	XENs
Stress Management	48%	53 %
Confidence Building	79 %	71 %
Time Management	50 %	77 %
Interpersonal skills (including conflict resolution)	60 %	62 %
Effective and Productive Delegation	40 %	54 %
Handling Meetings Effectively	60 %	92 %
House-keeping (5S) (based upon an assessment on how records, tools, equipments, etc are being identified and handled by staff members)	100 %	85 %
Safety Systems	100 %	100 %

5.1.2 Through Group assessment

The group of Superintending Engineers and XENs on Dec 28, during their group activity assessed the Training Needs. Training need topics assessed by the each group of Superintending Engineers and XENs is given below.

(i) By Superintending Engineers

Training areas identified by SEs during Group assessment are as follows

- TQM
- TPM
- PERT/CPM
- Stress Management
- Assets Management
- Disaster Management
- Computers
- Accounting systems
- Techniques for inventory management
- Quality control in execution of works (Quality in service)
- Better Human Relations (interpersonal skills)
- O & M of WTP/STP
- Maintenance of canal based schemes and Tube well based schemes
- Latest technologies and machinery for WTP/STP
- Court cases /legal matters
- Computer Aided Design
- Design and Maintenance of sewerage treatment plant
- PWD code
- PWD specifications
- Public Dealing
- Latest technologies on leakage control
- Latest technologies on water supply systems
- New material uses for water supply and sewerage system

(ii) By XENs

Training areas identified by XENs during Group assessment are as follows

- Interpersonal skills- Public dealing
- Personality Development - Behavioural change management
- Customer care and prompt response to public complaints
- Stress Management
- Material Management
- E-tendering,
- Latest technologies applicable in the field
- New policies and circulars
- MS office, word and excel
- Stores inventory on web site
- RTI
- STP design
- Service rules
- Auto CAD
- PHED accounting system
- Assets Management
- Disaster Management
- Maintenance of large water supply and STP and sewerage system
- PHED website
- Laboratory testing
- Financial rules
- Design of water supply systems, sewerage, storm system with design software
- Duties of subordinate staff – Task Analysis
- Citizen Charter and Toll free – (Har samadhan)
- PWD code, WTP, PFR, DFR, Specification, Quality Control

5.2 Sub Divisional Engineers

5.2.1 Through Individual Assessment

While details are provided in Annexure 8.3, the same are summarized below. Data so suggest that below mention % of SDEs have identified following area as their training needs.

- Stress Management: 57 %
- Confidence Building: 55 %
- Developing Effective Teams: 71%
- Interpersonal Skills (including conflict resolution): 74 %
- Building Image of the organisation: 68 %
(while only 47 % of XENs and 40 % of SEs consider this as a core area!)
- Safety Systems: 100%
- Handling meeting effectively: 91 %
- House-keeping (5S): 100%
(Handling / Availability of Tools, equipment, information, etc)

5.2.2 Through Group Activity

Sub Divisional Engineers during their group activity assessed the following as Training Needs. These are summarized on the basis of three workshops where this group participated.

- Court Cases
- Online Cash Book (Account Management)
- Disaster Management
- Time Management
- PERT/CPM
- Design Of Water Supply, Sewerage / Storm Water System
- Water Management
- Revenue Collection
- Stress Management
- Construction Material And Testing
- Office Work And Management

5.3 Junior Engineers

5.3.1 Through Individual Assessment

While details are provided in Annexure 8.4, the same are summarized below. Data so suggest that below mention % of JEs have identified following area as their training needs.

- Developing Key Performance Areas: 84 %
- Disaster Management: 82 %
(linked to technical aspect of handling floods etc)
- Interpersonal Skills (including conflict resolution): 81%
- Confidence Building: 79 %
- Developing Effective Teams: 67 %
- Competency Assessment of New Staff: 64 %
(i.e. holding a workshop)
(It's important to mention here that only 23 % of SDEs and above feel the need for the same)
- Time Management: 63 %
- Productive Delegation: 49 %
(borderline case, being considered)

5.3.2 Through Group Activity

Junior Engineers during their group activity assessed the following as Training Needs

- Computer Training
- Public Dealing And Interpersonal Relation
- Website And Departmental Instructions
- Sewerage/Pipe, Jointing, Laying, Repairs
- STP, WTP, Canal Based, Tube Well Based Water Supply Schemes, Boring of t/w
- Accounts Management And Budgeting
- RTI, Citizen Charter
- Toll- Free
- Chlorination
- Latest Technologies
- Record Keeping Of MB, MAS, Indent Book, TEO, T&P Return (Tools And Plants Returns)

- Safety Systems
- Exposure Visits
- Field Surveys And Drawing
- Estimation Of Quantities And Preparation Of Cost Estimation, HSR and NS Rates
- Duties and Responsibilities
- PWD Codes, Specification Book and Financial Powers
- Water Conservation
- O &M Of Canal Based And Tube Well Based Schemes
- Water Testing (field testing kits, chemical and bacterial)
- Storage and shelf life
- Construction materials and testing
- Auto CAD
- Machinery O&M
- Water borne diseases and their prevention

5.4 Ministerial staff

5.4.1 Through Individual Assessment

While details are provided in Annexure 8.5, the same are summarized below. Data so suggest that below mention % of MS have identified following area as their training needs.

- | | |
|--|------|
| • Time Management: | 77 % |
| • Prioritising at work, Managing interruption: | 63 % |
| • Effective Communication: | 52 % |
| • Handling Criticism: | 51% |
| • Work computerization to improve efficiency: | 96 % |

5.4.2 Through Group Activity

Ministerial staff included following categories of employees

- Clerk
- Deputy Superintendent
- Head Clerk
- Assistant/Head Draftsman (ADM/HDM)
- Store Clerk
- Chemist

Training need areas identified in each case are tabulated below:

Lab Chemist

1. Waste water sample analysis
2. Computer knowledge
3. Disinfection of water
4. Testing for heavy metals
5. New Methods/ Tool for water analysis
6. Testing of water samples
7. English

ADM/HDM

1. Estimate preparation
2. DNIT preparation
3. Computer
4. Auto-Cad
5. Design Norms of PHD
6. English
7. Website PHED
8. ISI-S
9. PWD- specification
10. RCC- Drawing Knowledge
11. Estimation of bill of material
12. Drawing and drafting
13. Non Schedule items
14. Record Maintenance
15. Design of water sewerage and storm systems

Stores

1. Computer
2. PHD Website
3. Accounting Website
4. Store Accounts
5. Inventory Management
6. 5S
7. Stacking, Store maintenance

Clerk/SDC

1. Account Management System
2. Computer
3. CSR
4. DFR
5. PWD Code
6. English-Drafting
7. PHD Website
8. Budget Management
9. E-Tendering
10. Personality development
11. Court case monitoring
12. Daily Dispatch
13. Agreement clauses
14. Maintenance of records
15. RTI

Deputy Superintendent and Assistant

1. Court cases-written statement drafting
2. Day rules-fixation, pension
3. Clauses-Agreement
4. Computer Emails
5. Stores handling, Accounts
6. Estimates
7. English- Drafting letters
8. PHD websites
9. E-salary
10. E-Tenders
11. Maintenance of old records
12. C service Rules/PWD code/DFR
13. RTI

5.5 Field staff

5.5.1 Through Individual Assessment

While details are provided in Annexure 8.6, the same are summarized below. Data so suggest that below mention % of FS have identified following area as their training needs.

- Prioritising at work, Managing interruption: 76%
- Interpersonal Skills: 60%
- Need for mentoring by seniors: 63 %
- Time Management: 60 %
- Training on computers: 55 %

5.5.2 Through Group Activity

Field staff included the following categories of employees

- Driver
- Sewer Man
- WPO & Electrician
- Fitter Helper/Fitter Coolie/ Plumber/Keyman/Patrolman
- Bill Distributers/Meter Readers

The assessment by Field Staff during their group activity is tabulated below.

Driver	
<ul style="list-style-type: none"> • Material Handling/Loading • Interpersonal Skills • Logbook • Motor Vehicle ACT • Information On Road Network And Routes 	<ul style="list-style-type: none"> • Traffic Signals/Rules • Fuel Management • Daily Vehicle Care/Trouble Shooting • Engine Maintenance • First Aid Training
Bill Distributers/Meter Readers	
<ul style="list-style-type: none"> • Record Keeping for Water Meter Reading • Ledger Maintenance • Calculation Of Bills • Public Dealing 	<ul style="list-style-type: none"> • Computer Training • Maintenance Of Cash And Banking • Bill Distribution Rules • Water Meter O&M
WPO & Electrician	
<ul style="list-style-type: none"> • Knowledge Of Starters/Motors/Pumps/ Panel Board /Chlorination (Liquid, Bleaching Powder & Gas) 	<ul style="list-style-type: none"> • Public Dealing • Diesel Engine And DG Set • O& M Of Filtration Plants

<ul style="list-style-type: none"> • Installation Of Pumping Machinery • Specification Of Fuses & Cable • First Aid • Safety Measures • Water Conservation • Reading of Pressure Gauge and Measurement of Discharge • Types Of Pumps/Motors And Their O & M 	<ul style="list-style-type: none"> • O & M Of Slow And Rapid Sand Filter • Electrical Instruments & Earthing • SCADA System (Wherever Required) • Water Testing (Field Testing Kits, Chemical And Bacterial) • Storage And Shelf Life • Construction Material And Testing • Record Keeping/Logbook
Sewer Man	
<ul style="list-style-type: none"> • Cleaning & Maintenance of Sewer • Safety Kit And Its Use, Safety Measures • Knowledge of New Sewer Cleaning Machinery • Cleaning & Unblocking of Sewerage 	<ul style="list-style-type: none"> • Pumping Machinery at Sewage Disposals and Cleaning the Blockages • Interpersonal Skills With Officers And Public • Swimming • First Aid
Fitter Helper/Fitter Coolie/ Plumber/Keyman/Patrolman	
<ul style="list-style-type: none"> • Types Of Tool And Use Of Hand Tools • Laying And Handling Of Pipes (Repair, Jointing And Laying) • Welding • Turning • Handling/Erection Of Pumping Machinery • First Aid • Safety Measures • Sanitary Fitting • Introduction Of Canal Based Schemes • Detection and Repair of Insanitary Connection • Plumbing 	<ul style="list-style-type: none"> • Watch And Ward Of Canal Based Water Works • For Chowkidar:- Reporting /Communication of Mishap/Accident • Duties Of Patrolman • Public Dealing Skills • Record Keeping • Repair of Leakages And Maintenance of OHSR. • Water Conservation • Water Meter O&M • Zoning System, Operation of Valves And Its Maintenance • Leakage Detection Method especially in Concrete pavements

5.6 Other findings:

These were for judging knowledge and perception of staff members to issue that could affect the cohesive working.

PHED Haryana; having made considerable advancement on information sharing, setting up helpline for the customers and putting the citizen charter in place, it was decided to include questions to assess the effectiveness of the same.

During organisational assessment phase, other areas that emerged for which perception of the participants could be assessed included “Groupism” and “Fear of allegation”. Response on the time period required for redressal of complaints at the level of an Executive Engineer / Superintending Engineer (as per the **citizen charter**), the helpline number, and the likely period for sanctioning of the water connection; revealed the following

- 72 % of the ministerial staff and 65 % of the field staff either answered the above wrong, or did not attempt. This gives an ample indication that the changes so well planned by PHED need to percolate down the line for effective implementation.
- On the other hand 93 % of the ministerial staff has responded to state that Citizen Charter has improved the efficiency!

Assessment on “groupism”

- 65 % of the SDE (and above), and 78 % of Junior Engineers have responded in way to reflect that strong groupism exists within the organisation. Training on **Team Building** thus emerges as a strong requirement.

Findings based on above have also been included as training topics.

Besides above there are some interesting comments noted by JEs and above on questions related to Citizen Charter, Help Line and training of subordinates. These are enclosed at **Annexure 10** and give idea about their thinking as well as situation prevailing in PHED.

6. Rationalization of Training Need topics and setting duration of each training

Topics of training are picked both on the basis of Individual Assessment and Group Activity. For easy comprehension of the training topics, the same have been categorised into the following main heads.

- Technical Skills
- Operational efficiency enhancement skills
- Accounting Systems Skills
- Financial, Administrative and Information Management skills
- Soft skills and Public Dealing skills
- Miscellaneous

It was further observed that under the Six Categories of the Training Topics participants have used different names for the same topic of training or have mixed training topics. This is especially true for Technical & Administrative Categories. These have been rationalized with the help of WSSO.

