CHAPTER – 12

RESEARCH FINDINGS & RECOMMENDATIONS

12.1 Analysis Of Results

In this study, 65% of the respondents were from Other Arms/ Services of Army while 35% from the Corps of EME in particular. The major findings of this study could be narrated as follows:-

(a) It was good to notice that all the respondents were familiar with the word 'HRM' evidencing that HRM process existed in the Indian Army. Both categories of Other Arms/ services and the EME personnel of Army denoted their more than 90% level of agreement for the definition of HRM as one "which helps and encourages employees to acquire and develop their capabilities and change their values, beliefs, and attitudes favourably to their present/future role." No real difference between the levels of agreement for this definition was noticed between the two categories of personnel. This way, the first hypothesis stood accepted.

(b) The familiarity with meaning and contents of HRM philosophy, practices and measures and resolving the pertinent challenges were found with very high degree of the agreement of the Army personnel; but the perceptions of their agreement did not show any major difference between the officers of other Arms/ services and the Corps of EME. This way, the second hypothesis was accepted.

(c) The HRM practices discussed earlier were found to have very high degree of the agreement of the Army personnel and the perceptions of their agreement did not show much difference between the personnel of other Arms/services and the EME personnel. Thus the third hypothesis stood accepted.

After the detailed study and analysis of the various facets related to HR planning in the Indian Army in general and in the Corps of EME in particular, the
problem has primarily been reduced to answering of the question of how many need to be recruited during each recruiting cycle considering the capacity of Training Centres, overall shortfall or increase in trade holdings and cadre strength, personnel retiring and other related factors.

12.2 Recruitment Prediction Model

Total recruitment is a function of the number of variables. The authorisation of manpower in the Corps of EME and in each trade varies depending on raisings / disbandment of units, abolishment of trades etc. The strength of personnel proceeding on Retirement (superannuation) and foreseen and unforeseen wastages from year 1989 to 2012 is compiled at Appendix ‘L’.

The Cyclic nature of Recruitment from year 1966 to 2012 is indicated in Figure 12.1. If recruitment is undertaken as per deficiencies created in each year, the cyclic pattern of wastages will repeat.

Figure - 12.1 : Cyclic Nature of Recruitment from year 1966 to 2012
The Cyclic nature of Retirement including foreseen and unforeseen wastages from year 1989 to 2012 is indicated in Figure 12.2.

Based on the data generated by the Prediction model, the number of individuals retiring per year up to 2026 is illustrated in Figure -12.3. It is observed that retirements in year 2007-08 and 2015-16 are very high. If the recruitment is undertaken as per yearly deficiency, the cyclic pattern of wastage will repeat.

Figure - 12.2 : Cyclic Nature of Retirement from year 1989 to 2012

Figure - 12.3 : Personnel Retiring from year 2013 to 2026
There are two ways to address this cyclic pattern problem:

(a) **Exercise Control on Recruitment.** In order to spread the recruitment over a period of time, under or over recruitment can be resorted to wherein, the numbers inducted in a year is less or more than the vacancies that arise. For this, HR planning has to be undertaken prior to the event. To amplify further, if in three successive years 3000, 4000 and 5000 individuals are retiring, then instead of placing recruitment demand figures in the same sequence, we modify the inductions to 4000 for the three successive years. The net effect is that while in the first two years the Corps holding is more than authorised, in the third year it becomes equal to the authorised percentage. The advantage that accrues is uniform loading of Training Centres besides achieving trade and skill balance.

(b) **Exercise Control on Both Retirement & Recruitment.** As observed in the above figures, the retirement pattern varies significantly. Hence, despite the best of all control measures that can be employed, the effect is going to be marginal. This can be overcome if the window for the pattern to stabilise is very large, say 20 years or some additional techniques are incorporated. The option available is to control the number of retirements by extending the service liability, reducing the premature retirements, grant of promotions etc. This will entail change in Corps policies and may not be acceptable.

12.2.1 **Control on Recruitment Only**

How many to be recruited? What should be the maximum Corps holding? Is a shortfall of 90% in holdings acceptable? For the sake of the research, a realistic and probably an acceptable Corps Availability Percentage (CAP) interval of 1.04 to 0.94 is being considered. The variation in CAP based on Recruitment demand is depicted in Figure – 12.4.
Figure – 12.4 : Variations in CAP Based on Recruitment Demand

Figure – 12.5 illustrates the variations in Actual Retiring & Recommended Recruitments and thus the effect on recruitment demand if the above model is applied. It can be observed from Figure – 12.5 that in initial years the intake of recruits recommended has been increased when compared to the numbers retiring. The affect is on the authorisation and holdings of the Corps of EME.
By increasing the intake, the CAP in the year 2016 is controlled at the acceptable minimum level of 94%. The peak load at Training Centres reduces in subsequent years and by 2017 it can be brought down to below the ideal recruitment target of 4000. On the other hand, in a much narrower window, the overall holding of the Corps after the initial dip to 94% has grown and stabilised very close to 100% by 2018.

The issues which affect these are dynamic in nature and require frequent review. The model seeks to achieve this very target. Once the acceptable figures for deficiency/ surpluses are arrived at, the actual intake can be worked out from the model and its effect over a 13 year period is analysed.

### 12.2.2 Control on Retirement & Recruitment

In the above analysis by controlling the recruitment, CAP was affected. The window of 104 to 94 percent gave an overall reduction in peak load at the training Centres. The question arises that if the window is made narrower and the dispersal spectrum smaller, will greater reduction in training commitment be achieved? This is possible by controlling retirements whose resultant effect has been shown in Figure – 12.6.

![Figure – 12.6: Variations in Actual Retiring and Adjusted Retirements](image-url)
A study of this Figure 12.6 reveals the effect of controlling the retirement of individuals over a very short period of 4 years by a small percentage can resolve the problem. The point to be observed here is that in the year 2015-16 the adjusted retiring is more than actual retiring. This is because the individuals granted extension two years back will come up for retirement.

**Figure - 12.7** shows the predicted recruitment on controlling the retirements, i.e. retirements have been spread over five years to decrease the recruitment levels.

If implemented, the intake at the Training Centres further reduces and the peak load is only 6700 which gradually tapers off to the ideal figure by 2020.
The Figure 12.8 depicts comparison of recruitment strength, when retirement is regulated. The damping coefficient decided by higher headquarters would dampen the curve by distributing retirement and recruitment strength. The additional benefit that accrues is that CAP is restricted to a narrower window.

It is pertinent to mention that the control/ restriction placed on retirement/ recruitment is a particular number taken based on the judgment of the study. The numbers being generic can be substituted by other alternate figures and its effect / manifestation observed over subsequent years. Thus, damping of the curve is possible by simply distributing retirements and recruitment. How much should be the damping coefficient / numbers is to be decided by higher authorities. Effort has been to provide a solution for arriving at an educated guess about the growth/decay of the holding pattern of the Corps.

The above analysis confirms that proper HR planning encompassing recruitment and retirement planning is vital for the Corps of EME, thereby proving the fourth hypothesis. A pragmatic prediction model has been developed to address the complex and dynamic process of HR planning in the Corps of EME. The research has introduced a conceptual simulation based model that can be
further refined as per emerging requirements. The penalties of not being correctly staffed are costly. Overstaffing too is wasteful and expensive. Further, overstaffing reduces the competitive efficiency. HRM aspects require an assessment of the present and future needs of the organisation and comparing the present resources with the requirement of the future. Appropriate steps have to be planned to bridge the demand and supply gap and achieve a strategic balance.

12.3 **Recommended Strategy and Other Recommendations**

The following important strategies and pragmatic approaches are recommended to improve HRM aspect relating to the **quality of recruitment**:

(a) **Elimination of RMP Factor.** It is suggested to take up a case for elimination of RMP factor for Soldier (Technical) to make it at par with the systems prevalent in Indian Air Force and Indian Navy. Interaction with other technical Arms on this account will help in strengthening the case.

(b) **ITI Entry for Soldier (Technical).** It is recommended to initiate/pursue case for Industrial Training Institutes (ITI) entry for Soldiers (Technical) as a Corps specific requirement.

(c) **Introduction of Aptitude Test at Recruitment Stage.** It is recommended to explore feasibility of introducing scientific aptitude test at recruitment stage as a long term plan. Defence Institute of Psychological Research (DIPR) and technical experts in this field may be approached to design appropriate battery of tests.

(d) **Precedence at Par with Technical Arms.** It is suggested to seek parity with technical Arms for allotment of Arms and Services to candidates selected as Soldier (Technical) by ZROs/AROs.

(e) **Dilution of Physical Fitness Test for Soldier(Technical).** It is recommended to dilute minimum acceptable standards for 1.5 kilometres run from 6 minutes 20 seconds to 7 minutes for Soldier(Technical) at recruitment stage. The same can be pursued on the grounds of trainability, without compromising the pass standards on culmination of military training.
The height criterion may also be reduced to 162 cm across the board for all regions in respect of Soldier (Technical), as in the case of trades of Clerks/Storekeepers.

(f) **Changes in Sequence of Screening for Soldier (Technical).** It is imperative to initiate a case for holding written test as the first stage of screening for Soldier (Technical) as in the case of Navy and Air Force. It is feasible to introduce the same with the existing monthly combined entrance examination (CEE). Screening of Soldier (General Duty) may culminate with CEE and that for Soldier (Technical) may commence from the same CEE.

(g) **Optimisation through Unit HQ Quota.** Presently only 20% of total recruitment is done through unit HQ quota and remaining 80% is done through ZROs/AROs route. It is recommended to implement all measures within our control to optimise intake through Unit HQ quota.

(h) **Aggressive Awareness Campaign.** A deliberate and systematic awareness campaign is suggested to be undertaken to project technical nature of the Corps of EME to encourage youth, on similar lines as Indian Navy and Indian Air Force. Professional body may be hired to design the campaign. A sustained campaign is essential to offset the reduced response to Soldier (Technical) category in view of proposed up gradation of bulk trades from Soldier (General Duty) to Soldier (Technical).

(i) **Selection on All India Merit.** The selection is to be made on all India merit basis as in the case of Navy/ Air Force. It needs to be delinked from the Recruitable Male Population Factor for Sol (Tech) cat, in consonance with the CAG’s recommendations.

(l) **Increased Intake : Officers.** The Corps has approximately 25% deficiency in the junior officers’ cadre. Accordingly, based on constant interaction, the Corps of EME has been able to ensure increase in the intake of officers in the Corps. The environment has also been sensitized on the depletion in the number of officers commissioned in the Corps and concerted efforts are being made at all levels to make up this deficiency.
through Special commission (SC), PC, SL, and ACC. There is an urgent requirement to tap this source and accordingly both the EME Centres are conducting preparatory cadres with qualified instructors for greater success in the Service Selection Board (SSB). These officers are now-a-days being detailed on Degree Engineering (DE), JC, WCC and Advance Equipment Courses to enhance their employability. They are in the due course going to provide strong support cadre base. In addition, the intake of the officers through the following two schemes has commenced:-

(i) **Technical Entry Scheme.** Youths after passing their ten plus two examination are enrolled and being taught Engineering. The course comprises of five years duration – four years for technical training and one year for military training.

(ii) **Women Entry Scheme.** Graduate and Post graduate women – both from technical and non-technical streams are being enrolled in non-combat role in the Armed Forces. At present, 124 lady officers are employed in the Corps of EME. They are also being detailed on various courses and can serve for fourteen years. Chief of Army Staff sanction for employment of more lady officers in the Corps has been obtained.

(l) **Upgradation of Technical Trades.** Upgradation of five technical trades viz. Vehicle Mechanic (MV), Electrician (MV), Fitter (AFV/AD), Fitter (Fd) and Armourer from Soldier (GD) category to Soldier (Tech) has been recently done after taking the approval/ recommendation of Army Trade Qualification Committee (ATQC), ADG PS, ADG Rtg and DG MP. This is considered a major success as it will affect 32,092 tradesmen which comprise appx 30% strength of the Corps of EME. The proposal is going to accrue the following advantages to the Corps of EME:-

(i) Enhanced intake education standard from Matric to 10+2 Science stream, Physics, Chemistry and Maths (PCM).
(ii) Better intellectual threshold of recruits with better understanding and ability to learn the nuances of engineering support aspects of state of the art equipment.

(iii) All the trades eligible for HMst test are now included in Soldier (Tech) category which leads to high technical threshold ensuring efficient and effective engineering support at all levels and enhances professional satisfaction among the JCOs/OR of these five trades.

Other Recommendations

(a) **Improved Pay & Allowances.** The successive pay commissions have succeeded in making a career in the armed forces so unattractive that we now have a shortage of 14,000 officers. Army should be adequately compensated in Grade Pay, Basic Pay & other allowances for its hardships and early retirement age by the Seventh Pay Commission.

(b) **Stress Reduction.** Steps like psychological training, yoga, counseling and increased interaction between the seniors & the subordinates must be taken to reduce the stress on our jawans. The officers and commanders have to become more accessible to jawans and promptly attend to their grievances.

(c) **Better Image Projection.** There is a requirement to project Army in media in a positive manner. Media should not sensationalize the news and project the Army in an incorrect perspective.

(d) **Stipulation of 33 years service to earn 50% of Pay as Pension.** In addition, the 33 years service stipulation to earn 50 per cent of pay as pension, is unfair. Almost all jawans, some JCOs and officers cannot complete 33 years of service because of early retirement. It is recommended that this condition should be removed.
(e) **Longer Tenure and Lateral Movement to Paramilitary Forces.**
To keep the young profile of the Army, a soldier has to retire earlier as compared with his counterparts in the civil services. There is a requirement for giving a longer tenure to Army personnel and their lateral movement to paramilitary forces and certain other organizations after the completion of their tenure in the Army.

(f) **Chief of Defence Staff (CDS).** The CDS would provide a single-point source of military advice, and resolve inter-service planning, policy and operational issues. In year 2004-2005 the Parliamentary Standing Committee on Defence recommended that there is an imperative need to create the post of CDS to enhance the effectiveness of the planning and execution of operations by Army, Navy and Air Force.

(g) **Responsive Civil Administration.** Most of our soldiers are stressed out due to worries about their domestic issues such as family feuds, land disputes and anxiety about their own future. Erstwhile Defence Minister A K Antony wrote to all chief ministers asking them to sensitize district administrations in their States to the needs of the soldiers.

(h) **Scientific methods of recruitment** Often, it is the failure of the system to identify those with suicidal tendencies or those who are prone to irrational behavior, resulting in incidents of suicides & fragging among the troops. We need the right man for the right job, for which more scientific methods of recruitment will have to devised.

### 12.4 Limitations of the Research Study

The major limitations of the present research are as under:-

(a) Massive workforce, employed from length to breadth of the country having different background, educational qualification, religious affiliations and work ethos.

(b) Sampling approach has been used in this study. As such, the study
suffers from the limitations of sampling in general. The study is related only to the Army personnel. The employees of other para military personnel like CRPF, BSF, SSB, CISF etc are not covered. Furthermore, the conclusions of the study may not be exact representative of the universe.

(c) A large number of EME trades exist, approximately 60 in uniform and almost equal number of trades in civilian manpower. Their recruitment, training, employment and career progression procedures are different.

(d) Stringent government legislations and guidelines, which are difficult and time consuming to change, for coping with fluctuating demands.

(e) The tenure of the policy makers in uniform at high levels is of short duration, debarring them to take long term decisions and ensure their implementation.

(f) Because of the confidential nature of the Armed Forces, obtaining data for manpower planning or any other research study is always a big hurdle.

12.5 **Scope for Further Study**

**Significance of the Study** emanates from the fact that the study is expected to go a long way in implementing the HRM practices in a more meaningful manner as the conclusions drawn are based on survey of the perceptions and attitudes of the Army personnel based on their actual feelings, experience and reactions regarding the HRM philosophy and HRM tools and techniques. From this point of view, the conclusions of this study will add to the existing knowledge on the HRM philosophy and practices and will become a sound base for future researchers in the field of HRM. The **scope for further study** can encompass the following domains:-

(a) The research findings of this study of HRM practices can be extended to other arms and services of the Indian Army, like Army Ordnance Corps, Army Supply Corps, Corps of Engineers and others.

(b) It can be also used in improving HRM practices of the Indian Air Force (IAF) and Indian Navy (IN), Defence Research and Development
Organisation (DRDO), Directorate General of Quality Assurance (DGQA), Ordnance Factories (OFs).

(c) The study can also be extensively used for similar studies in other government and non-government organisations, public and private sector organisations in India and abroad.

12.7 Conclusion

The research study has thus succeeded in bringing out the various facets of HRM practices of the Indian Army in general and the Corps of EME in particular. The various aspects included are recruitment, training, career progression, performance appraisal, social security and welfare, job satisfaction, motivation, morale and communication etc. It has tried to explore and present various peculiarities of the recruitment, training, career progression and performance appraisal systems of the Army in general and Corps of EME in particular besides throwing adequate light on their motivational, job satisfaction, communication and welfare measures.

In addition, the study has analysed the human resource records, audit and research in EME. The study has also ventured in presenting various forecasting models, which will help in actual assessment of the futuristic manpower requirement. The trade imbalances, its reasons and suggestions to bridge the gaps form an important part of the research study. The findings of the study and the recommendations made will certainly help the Corps of EME and the Army to a large extent in removing the imbalances and helping in recruitment of right quality of personnel to meet the divergent and most challenging demands on a long term basis. The study will also provide a road map for similar manpower planning research studies in other Arms and Services of the Indian Army, Indian Air Force, Indian Navy and other defence or non-defence, government or non-government, public or private organisations in India and abroad.