PUBLIC WORKS DEPARTMENT
Government of Uttar Pradesh, India

UTTAR PRADESH STATE ROADS PROJECT
Under IBRD Loan No. 4684-IN

Technical Assistance for Implementation of Institutional Reforms in the Road Sector of Uttar Pradesh

RECOMMENDATION ON LONG-TERM CSR-COMPATIBLE ‘CORE STAFF RESOURCES’ PLANS WITH GOUPT (FINAL)

Report No. 27

November 2007

LEA International Ltd., Canada
in joint venture with
LEA Associates South Asia Pvt. Ltd., India
in association with
Ministry of Transportation of Ontario, Canada
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ANNEXURE

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1. INTRODUCTION

The World Bank Supported UPSRP II presently under implementation contains a program to enhance the PWD Capacity to take up bigger challenges in the infrastructure development in the State. It is envisioned that the UP PWD should be capable of developing and managing a top quality road network in the State. Institutional Development of UP PWD is an integral component of the UPSRP. The Institutional Development Study (IDS) of the UP road sector carried out by TCE made several recommendations for Institutional strengthening and capacity enhancement of the PWD. Major IDS recommendations were endorsed by Government of UP in September 2001 and the resultant Institutional Development and Strengthening Plan (IDSP) is now taken up for implementation with the assistance from the TA Consultants.

The IDS study report stated the following:

“Need to carry out a comprehensive human resource planning and development program as a part of the Institutional strengthening program. Its components should include Manpower need assessment, human resource planning, human resource development policy/guidelines, training policy & objectives and finally performance appraisal and career planning. This study has to be in line with the attempts under the CSR process, underway, for the complete State administration”.

The IDSP involves a wide range of reforms in the organisational structure, systems and processes of the PWD. The implementation strategy for the reforms encompasses diverse catalytic interventions aimed variously at PWD road management, capacity building, legislation, policy and process modernisation, organisational, systems and technological enhancements.

Within the overall organisational capacity building initiative, the ‘Human Resource Management and Development’ is one of the critical areas for reforms and capacity enhancement. The HR and Training enhancements to be implemented in the PWD has a range of initiatives including Staff requirement study through robust work force planning exercise, Training Needs Assessment (TNA) of PWD officers and training for skills development under a Core Skills Development Programme (CSDP), Career Planning & development strategies, staff mobility etc.

1.1 THE IDS ACTION PLAN

The IDS Action Plan (serial 2C) objective states: “Strategic Planning of PWD skill mix, accountability, staffing profiles and levels”

Action milestone to be achieved in this direction is: “Confirm long term Civil Service Reform Compatible ‘core staff resource plans’ with GoUP”.

1.2 OBJECTIVES OF THIS REPORT

This report addresses the TA Consultants’ deliverable Report No. 27: ‘Recommendations on long-term CSR compatible ‘core staff resources’ plans with GoUP’. While doing so this report will take into account the functional workload in the ‘restructured organisation’ and the availability of existing manpower in the department and their skill sets.
1.3 CORE STAFF OF PWD

The concept of ‘Core staff’ of PWD, as defined in the IDS Report, refers to those set of staff who are involved in performance of ‘core functions of PWD’ directly responsible for the achievement of the objectives of the PWD organisation performance. This report will deal with the ‘core staff’ as further detailed in Section 4.

1.4 STAFF RESOURCE PLANNING

The term 'staff resource planning' is synonymous with ‘human resource planning’, ‘manpower planning’ and ‘workforce planning’, ‘personnel planning’ etc. Essentially, the term denotes to the processes of determining staff requirements taking into account the anticipated future needs, the estimated availability of manpower with the organisation and a plan with timelines to make the required staff available in the organisation.

1.5 CORE STAFF NEEDS FOR THE RESTRUCTURED PWD ORGANISATION

The TA Consultants have submitted a report on “Progressive PWD Restructuring and staffing realignment including internal staff communications on all major aspects” (Report No.11). This is a substantive report with wide-ranging ramifications for the PWD of the future, especially in respect of the Human Resources. The restructuring exercise incorporates modernisation of various ‘functions’ in PWD operations by introducing and strengthening state-of-the-art planning and management functions for effective decision making. The resultant ‘shift’ in the functional workload in PWD at strategic, managerial and operational levels would necessarily involve substantial changes in the staffing needs.

The Report no. 15 on “PWD systematic functional, workload and manpower study to determine ‘longer-term minimum needs staffing strategy’ was developed simultaneously with the Report no.11 with wide-ranging consultations with cross sections of PWD Officers. The Report has computed the minimum staffing needs based on the key positions required in the PWD for carrying out the various key functions assigned to PWD.

The implementation of reforms in UP PWD will require an appropriate staffing strategy for having right people with the right skills and competencies at the key positions. The HR Unit within PWD will have a major role in implementation of the PWD restructuring through staff resource plans drawn up according to the long term staffing strategy.

1.6 ROLE OF THE HRD CELL

The need for a dedicated HRD and Training Unit in PWD was accepted as essential for carrying on the HR and training interventions including staffing realignment for the restructured PWD Organisation. A beginning has been made towards the establishment of the HRD & Training Cell by issue of the necessary Government Orders on 05 October 2007. The next task would be to identify suitable officers as per Report no. 4, which has been discussed and accepted by the Project Steering Committee (PSC) meeting on 26 July 2007. The HRD & Training Cell functioning under a Chief Engineer (Human Resources) will be expected to undertake the wide ranging HRD, Organisation Development and Training activities.
This report follows the Report no. 15 on the ‘longer term minimum needs staffing strategy’ and will list out the methodology for development of staff resources plans. This report will be followed by a more detailed “Human resource planning and management” programme (Report No. 43).

1.7 THE STRUCTURE OF THIS REPORT

This report is in sections as described below:

**Section 2:** Discusses the Civil Service Reforms (CSR) guidelines on ‘staff resource planning’ in the CSR policies in Government of UP and Govt. of India.

**Section 3:** Discusses the staff resources planning policies and guidelines in the Government of India

**Section 4:** Discusses the requirements of core staff resources in PWD in the near and medium term and the staffing strategy

**Section 5:** Recommends a methodology for development and implementation of Core Staff Resource planning in the UP PWD.
2. CIVIL SERVICE REFORMS (CSR) AND STAFF RESOURCE PLANNING

2.1 CIVIL SERVICE REFORMS

Specific reference has been made to the Civil Services Reforms (CSR) process in the IDS Report 2002 and the Government endorsed IDS Action Plan. The CSR process has been underway since late 90’s. This section reviews and analyses various policies, guidelines and instructions / orders issued under the CSR initiative and their possible adoption/implementation in the UPPWD.

The IDS recommendations endorsed by GoUP in respect of Human Resource Management states the task as:

“Need to carry out comprehensive Human Resource Planning and Development programme as a part of the Institutional Strengthening Programme. Its components should include Manpower need assessment, human resource planning, human resource development policy/guidelines, Training policy and objectives, and finally performance appraisal and career planning. This study has to be in line with the attempts under CSR process, underway, for the complete State Administration.”

The GoUP endorsed IDSP mentions of the (then) ongoing CSR deliberations as: ‘PWD inclusion in GoUP Civil Service Reform (CSR) process and staffing freeze’ and ‘PWD Policy Cell established for CSR support in 1999’. The deliverables of the TA Consultants linked to the outcomes of the CSR process in the following manner:

Confirm long term CSR–compatible core staff resources plans with GoUP
Implement CSR-linked PWD HR Planning & Development program
Implement revised CSR-linked staff performance appraisal policy and processes.
Implementation of CSR linked HR Planning and Development program

2.2 CSR IN GOVERNMENT OF UTTAR PRADESH

CSR is a country wide reform initiative aimed at toning up the administration and enhancing efficiencies of the Government staff and processes for better service delivery to the citizens. Civil Services Reforms are generally initiated at the Government of India level and are run in parallel in various State Governments as well. As per the ‘UP Civil Service Reforms Policy 2000’ issued by the Department of Personnel, GoUP, the CSR initiative in the State was triggered by the conference of Chief Ministers organized by the Government of India during May 1997, which discussed the subjects of regularly making available accountable services to people and successful implementation of the (development) schemes. Subsequently discussions were held between the representatives of the World Bank and the State Government, in which the World Bank emphasized the need for making the civil services more effective and proactive and limit the administrative expenditure. Discussions on the issue of reforms in public service were also held with officers from Govt. of India during that time. The preliminary proposal for UP Civil Service Reforms Policy 2000 was drafted by the (then) UP Academy of Administration, Nainital.
The draft policy was deliberated upon by a high level Group of Officers constituted for the purpose. The UP Civil Services Reform Policy was issued by the Department of Personnel after approval by the Economic Development Committee of Hon'ble Cabinet Committee.

The UP Civil Services Reform Policy-2000 provides broad policy for implementation in various departments of the State Government. The full text of UP CSR Policy is given at Annexure 1.

CSR is a state wide initiative and PWD is expected to implement the Government orders and directives pertaining to the revised systems and processes when they are firmed up and orders are issued. The issue of the State CSR Policy in 2000 is a major landmark. However, subsequent to the issuance of the CSR Policy document, it appears that no major directives/orders/guidelines/ study reports on the subject have been issued by the GoUP. It is ascertained that the State level CSR Cell, which was functioning in the Department of Personnel is at present not active. The PWD Policy Cell for CSR support is also either dormant or has been discontinued.

2.3 CSR AND STAFF RESOURCE PLANNING

During the intervening period between the formulation of IDS Action Plan (2001) and now (the time for implementation), no specific CSR based orders/reports/recommendations in respect of staff resource planning have been issued at the GoUP level.

At the Government of India level however, some work has been done in respect of Staff resource planning.

It is to be noted that most Government Reform agenda originates from the Centre and are implemented first in the Government of India and subsequently cascades down to the States. During the pre-implementation phase of any reform, various study committees/ commissions are constituted and these committees generally hold wide-ranging discussions with the representatives of Central as well as State Governments before firming up the recommendations. This is a necessity as there is a common thread of administrative machinery existing between the Central Government and the State Governments in the form of the All India Services (IAS, IPS IFS etc) who are at the helm of the administrative structure of the Central as well as the State Governments. Consultations at the pre-implementation stage also facilitate implementation.

Usually, the implementation of any new system at the State Government level following introduction of the same at the Centre; often entails another round of deliberations at the State level for adaptation to local conditions. In this regard, some States are quicker than others in implementing the changes. Examples of such pattern is to be found in implementation of pay revisions for Government staff through Pay Commission recommendations, the sixth such Pay Commission for Central Government employees is currently in progress. Once the Pay Commission's awards are implemented at the Centre, the States thereafter follow suit; constitute State level Pay Commissions and take appropriate decisions.
2.4 STAFF RESOURCE PLANNING IN UP CSR AGENDA

The need for a planning process for staff resources in the PWD was established in the IDS study and included as an Action agenda in the Government endorsed IDSP in 2001. The IDSP stipulated that core staff resource plans which are compatible with the CSR initiatives, be developed and operationalised. It was appreciated that staff needs for PWD be established taking into account specific requirements of the PWD and conforming to the overall staffing policies of the State Government.

'Most of the procedures, rules and regulations, are standard ones and uniformly applicable to all the Government Departments in the State. While the review of these can indicate the functionality or otherwise of the current practices and its impact on PWD, the scope for major alterations is constrained by the ability of the Department to deviate from State Government policies, rules and regulations. However, it is important to note that the State has recognized the need to undertake review of the State's Human Resource Management Policies and Practices and develop suitable interventions under the Civil Service Reforms exercise'.

The UP CSR Policy (paragraphs 6.1 and 6.2 quoted below) contains the following policy guidelines concerning the work systems and methods consisting of Personnel Management and the Performance evaluation system.

**UTTAR PRADESH CSR POLICY 2000**

**Human resource management and development**

To meet the two-fold challenge of performance management and improvement in the civil service, human resource development is the most decisive means and effort. Inadequate and insincere efforts for capacity building, especially half-hearted efforts made in the context of middle level and local personnel, has been the main cause of the present image of civil service. Therefore, the main objective of the strategy for future human resource development would be capacity building of all the government servants, especially those working at the middle and local level.

This will include the following activities:

Constant up-gradation of knowledge, skills and attitude of civil servants working at all levels of the government with a focus on the cutting edge level through compulsory induction, in-service and specialized training.

The goal of training for all, as stated in the national and state training policies, to be realized through sustained efforts and interventions.

Sensitization of civil servants on gender issues and social responsibilities at all levels to be undertaken through a series of workshops, seminars, training and orientation programmes.
Institutionalization of best practices in civil service administration and their documentation for institutional memory.

Suitable systems are developed so that timely decision making could be encouraged and promoted.

Inter-sectoral mobility of civil servants to be encouraged as per the emerging needs and opportunities.

Greater use of Information Technology (IT).

Specialization to be encouraged among the Group A and B level civil servants through informed career planning and training.

The problem of frequent transfers should be solved through strict implementation of clearly defined personnel rules. For the transfer of senior officers of All India Services the suggestions of the Chief Secretary and other senior officers shall be taken and the final decision shall be taken by the Hon'ble Chief Minister on the names thus suggested.

### 2.5 CSR INITIATIVES IN THE CENTRAL GOVERNMENT

Various CSR reports on Civil Service Reforms in Govt. of India such as the CSR (Hota Committee) Report, July 2004, the Surindernath Committee Report 2003 and the Yugandhar Committee Report have been scanned. The above reports provide substantial guidelines for revamping the HR systems and processes in the Government and a number of them have been already been implemented in the Government of India. Two of the most notable enhancements are: the revised performance appraisal system known as Performance Appraisal Report (PAR), discussed in Report no. 37 and the second on the structured training & development system discussed in Report no. 36.

No specific studies were commissioned on the subject of ‘staff resource planning’ under the CSR initiative, at either the State Govt. or the Central Govt. level; unlike substantive work on training, career development and performance management which resulted in issue of policies and orders/guidelines. The broad directions therefore are to be found in the guidelines on personnel/human resources management practices. The CSR studies, it appears, takes into cognisance that existing guidelines for advance planning of staff requirements and staff resource planning required for cadre structure planning and management. These guidelines are highly relevant to UP PWD and discussed in the Section 3.
3. STAFF RESOURCE PLANNING PRACTICES IN GOVERNMENT

No specific studies were commissioned on the subject of ‘staff resource planning’ under the CSR initiative, at either the State Govt. or the Central Govt. level; unlike substantive work on training, career development and performance management which resulted in issue of policies and orders/guidelines. The broad directions therefore are to be found in the guidelines on personnel/human resources management practices. The CSR studies, it appears, takes into cognisance that guidelines existed for advance planning of staff requirements and staff resource planning has been generally done as a cadre planning exercise from time to time for sanctions for new posts and upgradations of posts.

3.1 CADRE STRUCTURE REVIEW MECHANISMS

Based on the Administrative Reforms Commission (Govt. of India) recommendations Govt. of India had issued guidelines that advance projections should be made of the requirements of personnel as ‘Cadre Structure Review Proposals’ at least once in 3 years. (The ARC’s original recommendation was to have it once in five years.)

3.1.1 Objectives of Cadre Structure Reviews

The objectives of cadre structure reviews are:

- To make advance projections of requirements of personnel for the next three years and to plan recruitment programme on a scientific basis; and
- To bring about rationalisation of cadre structure with a view to improving the efficiency and morale and enhancing the effectiveness of the Service.
- To ensure advance planning of the requirements of personnel for timely recruitment of personnel in adequate numbers essential to prepare them for future deployment.
- To obtain timely sanction for new posts through the time consuming process.
- To avoid violent fluctuations in the rate of recruitment which can have adverse effects on the quality of recruits and cadre management.

The cadre structure of a Service should satisfy the criteria that different grades of the Service should reflect distinctly different levels of duties and responsibilities;

Structure of the cadre should be such as to facilitate smooth movement of personnel, both vertical as well as horizontal; and

It should promote maximum efficiency commensurate with economy expenditure.

3.1.2 Norms for Cadre Strength

Basic constituents of a Service cadre should normally be regular duty posts, probationers’ reserves; leave reserve, training reserve and deputation reserve the sum total of the regular duty posts and the various reserves is to be taken as authorised strength of the cadre.
a. Regular Duty Posts: Those posts in the cadre which carry the functions that fulfil the objectives for which the Service was constituted.

b. Probationers Reserve: Direct recruits are normally given initial training for periods ranging from one year to three years while on probation. The posts against which they are shown during the training period, which includes post-entry institutional as well as on-job training should not be included in the strength of regular duty posts, but should be shown separately as probationers’ reserve. If the period of training of a probationer is one year, the size of probationers reserve should be equal to the size of one batch of direct recruits; if the period of training is 2 years, the reserve has to be double the size of a batch; and so on. Where the size of recruitment varies from year to year, the maximum recruitment in one year during the period of review may be taken as the basis for determination of size of reserve.

c. Leave, training and deputation reserves: There is an important difference between the probationers reserve and ‘other’ reserves. The former is set apart for a definite category of service personnel, viz. fresh recruits directly appointed to the lowest rung of the Service. The latter serve a more general purpose of providing substitutes against vacancies caused due to Service officers proceeding on long leave, training or deputation. For every officer shown against other reserves, there should thus be one officer on leave, training or deputation. These reserves are needed in order to ensure that the regular duty posts are continuously manned by competent officers. These reserves are ordinarily created in the entry grade of the Service.

3.1.3 Guidelines for Recruitment Planning

Rate of recruitment to a cadre is essentially a function of the maintenance and growth needs of the Service. A third important factor that determines recruitment size is the quantum of ‘gaps’, i.e. the number of vacancies remaining unfilled for a period of one year or more. It would be convenient to discuss recruitment plan under the three main heads representing the three basic components, viz. (1) maintenance needs (ii) growth needs and (iii) gaps. While drawing up the recruitment plan, promotion prospects will also have to be kept in view.

Maintenance needs arise out of wastage—both normal (due to retirements on superannuation) and abnormal (due to resignations) deaths, dismissals, etc.), Data on the future wastage pattern for say 5 years should be compiled both in respect of direct recruits and promotee officers. In particular some Group ‘B’ officers likely to be promoted to the Service during the next three years may be retiring within the period of review. To smooth out violent annual fluctuations, if any, an average of the next 5 years should be taken to represent the maintenance requirements of the Service/cadre on account of normal retirement. As regards abnormal wastage to resignation, dismissals, deaths, etc., this may be estimated on the basis of actual experience during the past five years.

Each cadre controlling authority should have a reasonable estimate of the future growth rate of personnel say, over the next 5 years. The actual retirements for the next three years (i.e. the
period of the triennial review) will have to be worked out as possible. In general, the growth
needs of a service will have to be assessed under the following components:

Normal growth of work in the current functional fields;

New functions/schemes likely to be undertaken

Policy-induced changes relating to organisation structure, personnel policy and other
administrative/procedural reforms.

Rate of increase in work load within the existing functions of the service may be studied
with reference to past trends and projected progress of on-going schemes/programmes
during the next three to five years. Normal growth in work should not generally lead to
any significant increase in number of posts unless it can be demonstrated on the basis of
quantitative norms that increase in work has a direct bearing on staff strength.

Along with progress of on-going schemes, some of which may taper off during the next
few years and thereby reduce the requirement of staff on them, a careful study should be
made of new programmes/projects and activities likely to be taken up during the next
years. Necessary correlation between financial and physical targets and staff
requirements should be established.

Policy changes in the personnel field also have an impact on future growth of personnel.
Some policy decisions may have been taken or likely to be taken which will have an
important bearing on the functions, organisation and structure of the Department/Service.
Likely impact of all such changes on the cadre strength should be carefully assessed.

The projection of future requirements is not necessarily an extrapolation of past trends for
the simple reason that the past conditions might not hold good in the future. Policy
changes recently introduced or likely to be introduced often influence the future behaviour
pattern of the trend which may not be amenable to quantification. Nevertheless, backed
by enlightened judgement and past experience, the cadre authority should still be in a
position to assess the growth rate within a reasonable narrow margin of error.

Under Recruitment resulting `gap', defined as the size of regular vacancies in the cadre
persisting continuously for more than a recruitment year, even though such vacancies might
have been filled by ad-hoc appointments. Regular vacancies are long-term vacancies which are
required to be filled on a regular basis in accordance with the Recruitment Rules. The main
causes of the gaps which usually accumulate in the lowest rung of the service are: non-
availability of suitable candidates; deliberate under-recruitment so as to avoid promotion blocks
at a later stage or defects in recruitment planning, such as failure to make proper allowance for
abnormal wastage, delays etc. A careful examination of the causes should be made so as to
arrive at a reasonable figure by which the gap should be reduced and recruitment increased over
the next three years.
Under recruitment and ad-hoc appointments should be avoided as far as possible, as these will create distortions in the cadre. In any case, it should be ensured that ad-hoc appointments do not persist for more than a year at the most. Where ad-hoc appointments are sizeable and have been continuing for long periods creating problems for the Cadre Authority and adversely affecting the morale of officers concerned, bold measures may have to be thought of, say in the directions of a radical restructuring of the cadre, a reassessment of promotion quotas and review of recruitment rules.

Over recruitment is as harmful, if not more, as under recruitment. The former leads to future blockades in promotions. The scope of undoing the damages done by past over-recruitment is very limited. The first objective of recruitment planning should, therefore, be to ensure that recruitment is made regularly every year and the rate of annual intake by direct recruitment and promotion from Group `B' is kept within a fixed optimum rate.

Study carried out by the Cadre Review Division indicated that the optimum rate of annual intake should be 3% of the authorised cadre strength. If a cadre is suffering from gross under recruitments in the past, the aforesaid optimum rate may fall short of the number required to fill the big gap in the cadre. A special method should be adopted on a one-time basis to ensure that gap is filled without creating future blockades in promotion. An appropriate method would be to hold a limited departmental competitive examination of the eligible Group `B' officers for filling the gap by promotion.

Promotion prospects are a vital factor affecting the morale and efficiency of the service personnel and hence the effectiveness of the cadre in discharging the role assigned to it. This aspect will, therefore, have to be kept in view while formulating proposals for restructuring a cadre. The Cadre Authority will do well, therefore, to keep under constant observation the trends of promotion/stagnation in the cadre. Constant updating of grade-wise seniority lists helps in correctly assessing promotion trends and prospects. Such updating may be carried out at least once in year i.e. as on first of each calendar year. An assessment may be made of the anticipated promotion prospects (as a result of cadre review) vis-a-vis existing (past) promotion trends. A realistic estimate of likely vacancies in each grade for the next three years, drawing up a programme of DPC meetings at regular intervals and strict adherence to planned recruitment programme will reduce the chances of occurrence of artificial bottlenecks and infuse in the minds of the Service personnel a sense of confidence in their future.

Recruitment Plan The sum total of maintenance needs and growth needs (including increase in reserve needs) will indicate that total recruitment size for the next three years. To this should be added a part of the gap which is proposed to be made good during the period of review. If one third of the total thus arrived at exceeds 3% of the authorised cadre strength, annual intake should be restricted to 3% only.
3.2 NEED FOR STAFF RESOURCE PLANNING IN UP PWD

Introduction of a scientific Staff resource planning process in PWD is considered a priority reform project at this time, on account of the following:

a. The State CSR Policy 2000 mandates that the Human resources be treated as critical resources and their capacity for performance be enhanced.

b. The IDS Action Plan (IDSP) includes implementation of a system of advance planning for acquisition and development of talent.

c. PWD is currently at the focus of the reform initiative through the World bank supported Institutional Development & Strengthening Project. The IDS Implementation project includes a wide ranging HRD and Training enhancements of which, introduction of an HR Planning process is a major value addition.

The dedicated HRD and Training Cell being established in the PWD to implement the various HRD and Training enhancements will be responsible for implementing the staff resource planning process. The objective is to develop the PWD as a pioneer department within GoUP in terms of adopting some of the modern HR management practices. The HRD and Training Cell will function as a professional HR Management Unit (like the Corporate HR in a Corporation) with capacity and expertise to implement various HR enhancements including a scientific manpower planning system.
4. **PWD ‘CORE STAFF’ RESOURCES**

The IDSP implementation agenda includes a “Progressive PWD Restructuring and staffing realignment including internal staff communications on all major aspects”. In fulfilment of this mandate, the TA Consultants have been carrying extensive studies and wide ranging discussions with PWD officials at various levels in the HQ as well as field units. The Consultants are currently in the process of finalization of their recommend which will be submitted as Report No. 11.

A broad view of the likely “Restructured PWD organisation has emerged and the same has been taken into account for developing the longer-term staffing strategy described in this report.

The restructured PWD organisation incorporates rationalization of various ‘functions’ in PWD operations. It emphasizes many modern planning and management functions for effective decision making. The resultant ‘shift’ in the functional workload in PWD at strategic, managerial and operational levels would necessarily involve substantial changes in the staffing needs.

The strategy for implementation of restructuring of UP PWD will necessitate an appropriate staffing strategy to ensure that the positions are filled by right people with the right abilities, and competencies. It is expected that the organizational restructuring can be effected over several years and each phase of reorganization will have a staffing strategy. The report no.11 would discuss the likely realignment of the existing staff into the revised PWD structure in the near-term. Considering that this “staffing realignment” is likely to leave some gaps (and possibly a few redundancies), a longer-term staffing strategy need to be developed.

4.1 **PWD FIELD ORGANISATION: ZONES, CIRCLES AND DIVISIONS**

The State is geographically divided into zones, circles and divisions, for administrative convenience. PWD organisation has a four-tier hierarchy with Zones, Circles and Divisions headed by Chief Engineers, Superintending Engineers and Executive Engineers respectively.

The existing Zones, Circles and Divisions are given below. Working Circles/ Divisions are the ones which are responsible for specific ‘Works’ pertaining to roads, bridges and buildings etc. The Circles and Divisions that are performing other functions such as planning, design, establishment etc. but not specific ‘Works’ are termed as ‘non-working’.
At present, the jurisdiction of the circle offices mostly coincides with that of the districts. With a total of 70 districts and 29 Circles, a Circle caters for the works in 2 or 3 districts. The Circle offices provide technical expertise, guidance and approvals of various types to the Divisional offices; which is the basic unit for implementation and the Executive Engineer in charge of a Division has the Prime responsibility of execution of 'works' consisting of contracting, procurement, project management, administration and payments. The Divisional office also interacts with the local administration for resource procurement and progress reporting on works financed through Government, apart from that through local administration under various schemes.

4.2 UNITS / CELLS FOR SPECIALIST FUNCTIONS

The following Units/ Cells are being established within the PWD as a part of IDSP implementation:

- HRD and Training
- Environmental and Social Development
- Quality Management
- Projects Policy and Planning
- IT Management and Planning
- Road Safety Planning and Engineering
- PSP/PPP Development. This work is assigned to a dedicated body, UPSHA, created for the purpose. PWD would be required to work closely with/in conjunction with UPSHA for increasing private sector participation in Road projects.
4.3 THE ROLE OF THE ZONES

For PWD to become a more effective and efficient organisation, the Zones need to play a greater role in the work of the PWD. The Zones are to be fully empowered and made responsible for all operational aspects of roads i.e. preparation of annual budgets, planning, procurement, award, supervising, and monitoring new construction and maintenance works, including quality control and financial management. Substantial changes in the staffing pattern in the Zonal Headquarters have been proposed in the restructured organisation.

Present arrangement is characterised by multiple agencies with Government playing the role of policy maker, implementer, financer and evaluator. Recourse to stakeholders' “concerns” is indirect and diffused and often very time consuming. In years to come, PWD would act as managers rather than just an implementing and construction organisation.

4.4 CHANGES IN WORK PROCESSES

PWD needs to change bring a change in its working system, whereby,

- Policy and Planning or Strategic Planning to be separated functionally from operations
- Ownership of the whole road network established
- Resource allocation process should be based on a rational basis

4.4.1 Accountability to Stake Holders

Accountability to Stakeholders is very essential for any Public Sector Organisation especially like Public Works Department (PWD).

4.4.2 Road Development Policy

Report No. 8 had focused on the review of the present UP Road Policy of 1998 and identifies the areas which need attention. The proposed updated road policy aims to facilitate an efficient road transport system, which is safe and meets the aspirations of citizens for improving the travel needs and quality. This policy also aims to integrate transportation demands of other sectors.

The proposed UP Road policy has several objectives to meet like:

- Establish a GIS/RMMS
- Capacity Building Measures
- Environment and Social Development
- Road Safety
- Asset Value
- Private Sector Participation
- Dedicated Road Fund
- Stakeholder Participation
- Integrated multi-modal transportation
Achieving objectives needs strong policy statements and commitment from the PWD which has to be implemented through right strategic direction and appropriate action plans. The following should help and guide the PWD in the preparation of its short, medium and long term business plans.

- Road Network Planning
- Road Development, Maintenance and Management Functions
- Business Planning and Funding
- Capacity Building Measures: Road Administration Organization and management
- Mitigate Environmental and Social Impacts

### 4.4.3 Key Functions Expected of PWD

The key functions that have to be carried out by the PWD are segregated into the following:

- **Policy making**, dealing with broad level issues which would impact the sector and hence impact the State economy as whole.
- **Planning**, which includes a gamut of issues ranging from the long and short term strategic planning for the sector to project level planning for individual projects
- **Implementation**, which can be further broken down into Procurement (procurement of consultants, contractors and other service providers); Management and monitoring (cover physical and financial progress of the projects as also quality monitoring of the work on new projects or maintenance)
- **Regulation**, needed to ensure the service delivery meets the standards and quality guidelines set for the sector in addition to safeguarding the stakeholder’s interests

Good road sector management involves a clear demarcation of key functions and the agencies/units that would be assigned to carry them out. This is necessary to achieve accountability and clarity of roles of each Unit. Ideally, key functions of Policy making, Planning, Implementation and Regulation should be handled by different agencies/units. Organisational design should be aimed at achieving separation of key roles in the long term.

### 4.5 CORE STAFF AND SUPPORT STAFF

#### 4.5.1 Core Staff

The concept of ‘Core staff’ of PWD, as defined in the IDS Report, refers to those set of staff who are involved in performance of ‘core functions of PWD’ and who are directly responsible for the achievement of the objectives of the PWD organisation. The other staffs who are not categorised as ‘Core staff’ are termed as ‘Support staff’.
PWD staff comprises both technical staff and non-technical and are classified under different cadres. PWD’s role as the engineering services provider of the Government, it is the technical staffs that perform the various engineering tasks assigned to the PWD. The technical staffs belong to various disciplines of Civil Engineering, Mechanical Engineering, Electrical Engineering and Architecture. However, Civil Engineers form the majority of the staff strength of PWD (over 90%). They are assigned the responsibility of fulfilling the major functions of PWD in the executive positions of PWD organisation, as E-in-C’s, functional heads, project leaders and heads of the field units like Divisions, Circles and Zones.

The primary responsibility today is planning, design, construction, maintenance and project management of road sector projects. The works concerning buildings and other engineering works having been reduced to a low level and involving only a small section of PWD staff and organisation. The present project, which is a part of UPSRP II, is aimed at capacity enhancement of the ‘Roads Organisation’ of PWD, where over 95% of the PWD staff is employed.

The Civil Engineers belonging to different cadres as discussed at 4.5.2 are treated as Core Staff for PWD. This report is designed to specifically address to long term staff planning for the Core staff.

There is a cadre of Electrical & Mechanical Engineers at all levels from JE to CE who are primarily responsible in maintenance and management of various machineries and equipment used for road construction and maintenance. The E & M engineers are classified as a ‘Support staff’

4.5.2 Categorisation of Civil Engineering Staff

The categorisation of Civil Engineer cadres in PWD is based on the types of entry, minimum qualifications for entry to a cadre, and the standard career pattern available to the cadre. On the basis of the above, the engineering / technical staffs are in the following three categories:

a. **Graduate Engineers**: Minimum qualification for entry is a Degree in Civil Engineering. The recruitments are made by the State Public Service commission. This cadre consists of AEs (class II) and Class I officers in the ranks of EEs, SEs, CEs and E-in-Cs. All entries are made in the level of AEs and the higher level positions are filled exclusively by promotions from the next lower levels

b. **Diploma Engineers**: Minimum qualification is a Diploma in Civil Engineering. JE (civil) and JE (Technical) belong to this category. The recruitments are made by the Staff Selection Commission.

c. **Other Technical Staff**: Draughtsmen & Tracers belong to this category. They are generally ITI qualified in the respective discipline. The number of staff in this category is smaller and showing a dwindling trend.
It is however to be noted that there would be a number of graduate (and a few post-graduate) degree holders in the JE cadre, because, either they decided to join the cadre for which the minimum entry requirement is a Diploma or have acquired a degree subsequent to joining the PWD. Similarly there would be some Diploma Engineers in the AE cadre who have been promoted from amongst JE’s.

In this study we shall focus on Civil Engineers, JE’s and upwards at (a) and (b) above. Another report will deal with career development opportunities of a graduate engineer joining as AE to move up in the hierarchy to EE and above and a diploma engineer joining as JE moving up to AE onwards. Within this set of Civil Engineers in the PWD, the first category- the Graduate Engineers have a bigger contribution to working of PWD and we shall devote more attention to that category.

Among the Civil engineers there is no concept of specialisation. All are ‘generalists’ and are therefore posted to any of the functions /positions in PWD without any limitations and can be inter changed easily. This means that any of the EEs can be posted to any of the 366 sanctioned EE posts without any impunity.

There is no scheme for lateral induction to a position higher than AE (unlike in some other State where direct class I entry is possible). There is no induction of specialists like transport planners, transport economists, environmental engineers and social scientists. Such specialists are not available in the department and their likely role in a modern day PWD

4.5.3 Staffing Needs: Sanctioned Posts

Sanctions for positions are accorded based on the justification of workload. Like any other Government Department, the process of sanction of additional posts is a long one. Most often, bans are operative on creation of new posts in pursuance with various cost cutting measures. Sanctions for new positions are issued after a long process of paperwork and justifications. Generally, whenever new or additional works are to be taken up, the work is assigned to an officer as an additional charge/task, in addition to his own. A single officer holding the charge of 3-4 posts/positions for long periods is not rare.

The situation is aggravated on account of the general impression that the Government departments are overstaffed. The situation has been created on account of unplanned and unregulated recruitments effected by successive Governments as a policy of the State’s responsibility of generating employment. However, the overstaffing is much more common at lower levels than at the Officers’ level. In the case of PWD, it is widely felt that there is an excess of clerical and class IV staff; and PWD may be better off by reducing their numbers. At higher levels, however, the situation is reversed. Creation and filling of higher level positions are subject to many stringent conditions.

In the absence of a pre-agreed manpower plan based on advance planning for manpower, decisions are made on case to case basis. The process itself is so daunting that the Departments generally do not persist with the cases and learn to live with the shortages as can be seen from the manpower sanction and the existing manpower in the PWD.
The effects of the shortages are highly detrimental to the functioning of PWD. The department and its various units struggle to manage the most pressing ('urgent') works, often in a fire fighting mode. In the process, some of the ‘important’ functions of planning of works, prioritisation based on economic criteria, management of assets, improvement of work processes for higher efficiencies etc. are not attended to as it is difficult to have dedicated people assigned for these tasks; and all the senior position holders have little time to devote to these non-urgent but vital activities. In the case of PWD, which is required to implement works of over Rs. 7000 crores of State Budget, the additional Rs. 1600 Crores of Central Govt funded PMGSY works, World Bank Project implementation and agency works for NHAI maintenance etc. without any additional manpower is a daunting task.

4.5.4 Present Staff Position (as in September 2007)

The present PWD field level organisation consists of Zones, Circles and Divisions as given below:

<table>
<thead>
<tr>
<th>Details</th>
<th>Zones</th>
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<td>Working</td>
<td>Non-working</td>
</tr>
<tr>
<td>Civil</td>
<td>12</td>
<td>29</td>
<td>3</td>
<td>32</td>
<td>160</td>
<td>18</td>
</tr>
<tr>
<td>National Highways</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>World Bank</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>10</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>PMGSY</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>55</td>
<td>2</td>
</tr>
<tr>
<td>Electrical and Mechanical</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>Maintenance (Building)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>DASP/SODIC</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>7</td>
<td>60</td>
<td>273</td>
<td>25</td>
<td>298</td>
</tr>
</tbody>
</table>

The PWD has a geographical structure to cater for all the regions/locations in the State. The 12 civil Zones and their associated Circles and Divisions are of the nature of permanent establishments to be tasked with engineering related works in the respective regions. In addition to the basic structure, Divisions, Circles and Zones are established from time to time to implement specific projects such as World Bank funded projects or PMGSY works.

The following special units are presently in operation and are likely to exist only till the works relating to them completed.
a. The National Highways Zone, Circles and Divisions are engaged in agency work for NHAI for maintenance of the NH sections running through the State. This work is strictly not of PWD as the ownership of the roads is with NHAI and the UP PWD provides man power and establishment out of its resources though compensated in monetary terms by NHAI.

b. The World Bank Zone, Circle and Divisions are likely to continue so long as the UPSRP is continued.

c. The large PMGSY organisation which has been recently created within PWD (3 Chief Engineers, 9 Circles and 57 Divisions) to take up the centrally funded PMGSY works utilizes 25-30% of PWD’s manpower and establishment resources. These units have been created in PWD by taking out manpower from within the PWD organisation and reassigning them as PMGSY units. The Divisions, Circles as well as the manpower available for the original PWD works, which also has increased three-fold, is thus severely reduced.

d. The DASP/SODIC units will no longer be needed.

Table 4.3 : UP PWD Staff Sanctions and in Position (Sep 2007)

<table>
<thead>
<tr>
<th>Designation / Position</th>
<th>(Total Number of Officers)</th>
<th>Sanctioned Post</th>
<th>In-position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>General</td>
<td>Deputation</td>
</tr>
<tr>
<td>Engineer-in-Chief (ENC)</td>
<td>3</td>
<td>2</td>
<td>Nil</td>
</tr>
<tr>
<td>Chief Engineer (CE) Civil – Level I</td>
<td>3</td>
<td>2</td>
<td>Nil</td>
</tr>
<tr>
<td>Chief Engineer (CE) Civil – Level II</td>
<td>29</td>
<td>18</td>
<td>7 (out of 29)</td>
</tr>
<tr>
<td>Chief Engineer (CE) Electrical/Mechanical</td>
<td>1</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td>Superintending Engineer (SE) Civil</td>
<td>85</td>
<td>73</td>
<td>14 (out of 85)</td>
</tr>
<tr>
<td>Superintending Engineer (SE) Electrical/Mechanical</td>
<td>4</td>
<td>4</td>
<td>Nil</td>
</tr>
<tr>
<td>Executive Engineer (EE) Civil</td>
<td>366</td>
<td>349</td>
<td>18 (out of 349)</td>
</tr>
<tr>
<td>Executive Engineer (EE) Electrical/Mechanical</td>
<td>28</td>
<td>27</td>
<td>Nil</td>
</tr>
<tr>
<td>Assistant Engineer (AE) Civil</td>
<td>1225</td>
<td>14 (out of 113)</td>
<td>676</td>
</tr>
<tr>
<td>Assistant Engineer (AE) Electrical/Mechanical</td>
<td>124</td>
<td>113</td>
<td>16 (out of 113)</td>
</tr>
<tr>
<td>Junior Engineer (JE) Civil</td>
<td>4176</td>
<td>3087</td>
<td>Nil</td>
</tr>
<tr>
<td>Junior Engineer (JE) Electrical/Mechanical</td>
<td>322+385</td>
<td>267+289</td>
<td>Nil</td>
</tr>
<tr>
<td>Junior Engineer (JE) T</td>
<td>467</td>
<td>325</td>
<td>Nil</td>
</tr>
<tr>
<td>Draftsman</td>
<td>319</td>
<td>344</td>
<td>Nil</td>
</tr>
<tr>
<td>Tracer</td>
<td>208</td>
<td>61</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Source: Establishment ‘A’ (Staff Officer), Establishment A (‘AE’ Section), Senior Staff Officer Establishment E-2 and PA Ministerial
Table 4.4: UP PWD Staff Strength: Electrical & Mechanical: (Sep 2007)

<table>
<thead>
<tr>
<th>Designation / Position</th>
<th>(Total Number of officers)</th>
<th>Sanctioned Post</th>
<th>In-position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Deputation</td>
<td>Total</td>
</tr>
<tr>
<td>Chief Engineer (CE) E/M</td>
<td>1</td>
<td>Nil</td>
<td>-</td>
</tr>
<tr>
<td>Superintending Engineer (SE) E/M</td>
<td>4</td>
<td>Nil</td>
<td>4</td>
</tr>
<tr>
<td>Executive Engineer (EE) E/M</td>
<td>28</td>
<td>1 (out of 28)</td>
<td>27</td>
</tr>
<tr>
<td>Assistant Engineer (AE) E/M</td>
<td>124</td>
<td>Nil</td>
<td>113</td>
</tr>
<tr>
<td>Junior Engineer (JE) E/M</td>
<td>322+385</td>
<td>Nil</td>
<td>267+289</td>
</tr>
</tbody>
</table>

4.5.5 Staffing In a typical Circle and Division Offices

The existing staffing norm for Divisions and Circles in PWD is given below.

Table 4.5: Circle Office

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintending Engineer (SE)</td>
<td>1</td>
</tr>
<tr>
<td>Staff Officer (SO) of EE level</td>
<td>1</td>
</tr>
<tr>
<td>Administrative Officer (AO)</td>
<td>1</td>
</tr>
<tr>
<td>Junior Engineer (Technical)</td>
<td>2</td>
</tr>
<tr>
<td>Draftsman</td>
<td>1</td>
</tr>
<tr>
<td>Clerks</td>
<td>14</td>
</tr>
<tr>
<td>Class IV staff: Peon</td>
<td>2</td>
</tr>
<tr>
<td>Class IV staff: Chowkidar</td>
<td>1</td>
</tr>
<tr>
<td>Class IV staff: Waterman</td>
<td>1</td>
</tr>
<tr>
<td>Class IV staff: Daftari</td>
<td>1</td>
</tr>
<tr>
<td>Class IV staff: Sweeper</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4.6: Division Office

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Engineer (EE)</td>
<td>1</td>
</tr>
<tr>
<td>Divisional Accounts Officer (DAO)</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Engineer (AE)</td>
<td>4</td>
</tr>
<tr>
<td>Junior Engineer (JE)</td>
<td>12</td>
</tr>
<tr>
<td>Junior Engineer (Technical)</td>
<td>1</td>
</tr>
<tr>
<td>Draftsman</td>
<td>2</td>
</tr>
<tr>
<td>Clerks</td>
<td>14</td>
</tr>
<tr>
<td>Class IV staff: Peon</td>
<td>3</td>
</tr>
<tr>
<td>Class IV staff: Chowkidar</td>
<td>1</td>
</tr>
<tr>
<td>Class IV staff: Waterman</td>
<td>1</td>
</tr>
<tr>
<td>Class IV staff: Daftari</td>
<td>1</td>
</tr>
</tbody>
</table>
The above shows that the proportion of technical staff is relatively higher in the Division office, as it is mainly involved in work supervision and execution. On the other hand the proportion of ministerial staff is high at Circle level, because of higher paper/documentation work.

The present position with respect to field units is that there is an acute shortage of AE’s in the Divisions, where their presence is crucial for proper planning, execution and physical supervision of works. As against a requirement of 4 AE’s in a Division, most Divisions are left with only 2 AE’s (only 1 in some) on account of acute shortage in the AE cadre. This has happened on account of progressive retirements and no fresh recruitments over last 10-15 years. Promotions of JE’s to the AE cadre has also not been effected to the extend they are required on account of court cases.

The shortage of AE’s in the Divisions, where they have the most important role of quality assurance and project supervision, severely restricts the capacity of Divisions to execute works. At the same time, the demands on a Division for a bigger work volume in money terms (from the norm of Rs 12 crores per Division per annum to about Rs 30 crores) have naturally led to the following situations:

- Neglect of the quality monitoring, supervision, road condition survey & data collection, road safety, network management, environment management functions.
- Selective implementation of ‘more pressing’ and ‘more lucrative’ works. The maintenance works which are generally of lower value, but need more time are given a lower priority. This is brought out in another Report on ‘Maintenance of Roads’ (Report no. 44).

"Under the present set up, the EE of the district is responsible for all kinds of activities related to planning, construction, maintenance and public relations for works connected with government buildings and roads under his jurisdiction. Besides this, the EE is to discharge administrative responsibilities. Because of multifarious activities under the charge of EE, the road maintenance activities mostly remain neglected. The EE can hardly spare time for planning and programming of maintenance works of the roads under his jurisdiction. With a strategic aim to contribute sustainable development by maintaining, operating and improving the core network in support of Government policies, restructuring of organizational set up of PWD is suggested. Under the restructured organizational set up, road activities at district level should be entrusted to a separate unit, which should be responsible exclusively for the operation and maintenance of existing core network including supervision of maintenance activities of all kinds. This unit should liaise with road users and development councils.

In UP PWD the work load norms of a working division is based on the yearly average budget allocation to the division. According to current norms the minimum work load of a normal PWD division should be around Rs.12.00 crores. Fixing of norms based on budget allocation has its own drawbacks. It does not take into consideration the amount of activities and efforts needed to accomplish the job assigned. It will be more appropriate if the norm of a core road division is based on physical assets i.e. length of roads to be maintained by it. It is suggested that norms should be set for performance monitoring role of PWD staff responsible for maintenance at all levels. Performance monitoring norms for a circle, division, sub division and section are suggested as under;
For administrative convenience there should be one working division for core road activities in each and every district of the state.”

4.6 COMPUTATION OF MANPOWER NEEDS OF RESTRUCTURED PWD ORGANISATION

The proposed restructured PWD organisation at the PWD HQ, the Zones, Circles and Divisions are worked out in the Report No. 11. The representative organisation structures of the PWD Headquarters, PWD Zone, Circle and Division are given at Figures 4.1 to 4.4 below.
Figure 4.1: Possible Organisation Structure of PWD HQ-Option 2

These Officers are based in the Zones and not in PWD

New Units / Cells to be established in PWD
1. HRD and Training
2. Projects Policy and Planning
3. IT Management and Planning
4. Quality Management
5. Environmental and Social Development
6. Road Safety Planning and Engineering

* CE UPIDS will continue till the implementation of IDS Project
Figure 4.2: Possible Organisation Structure of PWD Zone - Option 1

Chief Engineer Zone
- Core Road (CR)
- Non Core Road (NCR)

Additional Chief Engineer Project Management

SE Quality Audit

Finance Manager SE / EE

Project Preparation EE

Design and Planning GIS

IT & MIS EE

RMMS / GIS EE

Rods SE - Circle
- CR
- NCR

CR Division EE

NCR Division EE

Electrical and Mechanical

These Officers are based in the Circle/Division and not in Zone Offices

Rods SE - Circle
- CR
- NCR

CR Division EE

NCR Division EE

Electrical and Mechanical

Initially all four functions will be conducted by an EE

Administration (HRD) SE
- HRD EE
- Legal
- Complaints
- Public Relations
- Right to Information

Technical SE
- Structures & Roads Buildings
  - Contracts & Spec. Procurement
  - Quality Management
  - Road Safety
  - Traffic Management

Initially these functions will be conducted by an EE
Figure 4.3: Possible Organisation Structure of PWD Circle - Option 1

Division Core Roads (CR) EE

Division Non Core Roads (NCR) EE

These Officers are based in Divisions and not in Circle Offices

Executive Engineer Project Management

Assistant Finance Manager

MIS, RMMS and GIS AE

Project Planning and Preparation AE

Superintending Engineer Circle

Core Road (CR) Non Core Road (NCR)

EE Quality Audit

Division Core Roads (CR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Electrical and Mechanical EE

Technical EE

Structures and Roads Buildings AE

Quality Management AE

Road Safety, Environmental & Social AE
Figure 4.4: Possible Organisation Structure of PWD in Divisions - Core Roads and Non-Core Roads - Option 2A and 2B

Core Roads - Option - 2A

Executive Engineer

Divisional Accounts Officer (DAO)

Assistant Engineer

Executive Engineer

Divisional Accounts Officer (DAO)

Assistant Engineer

Executive Engineer

Assistant Engineer

Executive Engineer

Assistant Engineer

Executive Engineer

Non-Core Roads - Option - 2B

Assistant Engineer Electrical and Mechanical

Executive Engineer

Divisional Accounts Officer (DAO)

Assistant Engineer

Executive Engineer

Divisional Accounts Officer (DAO)

Assistant Engineer

Executive Engineer

Assistant Engineer
The minimum level manpower needs at various levels/ cadres in the Restructured PWD have been computed based on representative structures of PWD HQ, Zones, Circles and Divisions suggested in Report no.11. The manpower needs will be subject to fine tuning based on the decisions of PWD/ Govt. of UP in respect of the final organisation structure accepted for implementation.

In the original IDS recommendations, there was a suggestion that Electrical& Mechanical wing be gradually phased out and the machineries available with the PWD be disposed off. However, in subsequent years, PWD, instead of reducing the machineries, have procured more machinery for timely & qualitative completion of works. Under the changed circumstances, it is felt that the Electrical & Mechanical wing will continue to function in the present manner in the medium term. It is ascertained that the existing E & M manpower would be sufficient to manage with efficiency enhancements. The strength of E & M manpower is maintained at existing level in the computations that follow.
### Table 4.7: Computation of Manpower Needs - Restructured PWD

#### Civil Engineers

<table>
<thead>
<tr>
<th>Post</th>
<th>Duty Posts</th>
<th>Existing Sanction</th>
<th>Surplus +/- Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DG (Works)</td>
<td>1</td>
<td>-</td>
<td>(-) 1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>ADG (Works)</td>
<td>1</td>
<td>-</td>
<td>(-) 1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>E-in-C</td>
<td>5</td>
<td>3</td>
<td>(-) 2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>CE (Civil)</td>
<td>36</td>
<td>(including 7 deputation)</td>
<td>(32 including 7 deputation)</td>
<td>(-) 4</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Civil ENGINEERS (CE &amp; above)</strong></td>
<td>43</td>
<td>35</td>
<td>(-) 8</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>CE (E &amp; M)</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>As existing</td>
</tr>
</tbody>
</table>

#### SE (Civil)

1. HQ SE positions (Table 4.7) 27 - - -
2. Zonal HQ : 15 × 3 (PWD 12 + PMGSY 3) 45 - - -
3. PWD Circles : 29 × 1 29 - - -
4. WB Circles : Circles : 9 (7 + 2) 9 - - -
5. PMGSY Circles : 9 (8 + 1) 9 - - -
6. NH Circles : 4 4 - - -
7. Building Circles 1 - - -
**Total Cadre Posts** 124 - - -
8. Deputations (as per existing sanction) 14 - - -
**Total Posts** 138 85 (including 14 deputation) (-) 53 73

#### EE (Civil)

1. PWD Divisions (2 Core road divisions & 4 non core road divisions) per circles 174 - - -
2. (Core Roads) × 29 circles = 58 circles 4 (Non-Core Roads) × 29 circles = 116 - - -
## Technical Assistance for Implementation of Institutional Reforms in Road Sector of Uttar Pradesh

### Report No. 27

### November 2007

<table>
<thead>
<tr>
<th>Post</th>
<th>Duty Posts</th>
<th>Existing Sanction</th>
<th>Surplus +/ Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. PMGSY Divisions</td>
<td>55 + 2</td>
<td>57</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. WB Divisions</td>
<td>16 + 2</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. NH Divisions</td>
<td>15 + 2</td>
<td>17</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Building Division</td>
<td></td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. HQ Positions (Table 4.7)</td>
<td></td>
<td>47</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7. Zonal Head Quarters (12 PWD Zone + 3 PMGSY Zone) @ 8 per Zonal HQ</td>
<td></td>
<td>120</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8. Circle HQ (29 PWD Circle + 8 PMGSY + 4 NH + 7 WB)</td>
<td></td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9. Deputation Posts (as per current sanction)</td>
<td></td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>524</strong></td>
<td><strong>366</strong></td>
<td><strong>(-) 158</strong></td>
<td><strong>349</strong></td>
<td></td>
</tr>
</tbody>
</table>

### AE (Civil)

<table>
<thead>
<tr>
<th></th>
<th>Duty Posts</th>
<th>Existing Sanction</th>
<th>Surplus +/ Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Divisions 174+57+18+7 = 266 @ 4 AEs per Division : 266 × 4</td>
<td>1064</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>+ 3 Building Division</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HQ Positions (Table 4.7)</td>
<td>57</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Zonal HQ - 15 × (2 AEs per EE) 15 × 7 × 2</td>
<td>210</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Circle HQ - (4 per circle HQ) 48 circles × 4</td>
<td>288</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Building Division: 3 × 4</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1547</strong></td>
<td><strong>1225</strong></td>
<td><strong>(-) 322</strong></td>
<td><strong>676</strong></td>
<td><strong>The shortage in the cadre is critical.</strong></td>
</tr>
</tbody>
</table>
## Technical Assistance for Implementation of Institutional Reforms in Road Sector of Uttar Pradesh

### Report No. 27

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<table>
<thead>
<tr>
<th>Post</th>
<th>Duty posts</th>
<th>Existing Sanction</th>
<th>Surplus +/- Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
</table>

#### JE (Civil)

<table>
<thead>
<tr>
<th>Divisions 266 × 16 @ 4 JE per AE</th>
<th>4256</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Division</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HQ &amp; Miscellaneous (Table 4.7)</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4354</strong></td>
<td><strong>4176</strong></td>
<td>(-) <strong>178</strong></td>
<td><strong>3087</strong></td>
</tr>
</tbody>
</table>

#### JE Civil (Technical)

<table>
<thead>
<tr>
<th>Divisions 266 × 1</th>
<th>266</th>
<th>69</th>
<th>-</th>
<th>-</th>
<th>-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial Division @ 1 JE (T)</td>
<td>48 × 2</td>
<td>96</td>
<td>30</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Circles</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Zone Circles</td>
<td>15 × 2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HQ (Table 4.7)</td>
<td>30</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>491</strong></td>
<td><strong>467</strong></td>
<td>(-) <strong>24</strong></td>
<td><strong>325</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

### Table 4.8: Manpower Needs, SE’s and below in Head Quarter Units

#### Civil Engineers

<table>
<thead>
<tr>
<th>Unit</th>
<th>SE</th>
<th>EE</th>
<th>AE</th>
<th>JE (Civil)</th>
<th>JE (T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DG Office</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ADG</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E-in-Cs (S)</td>
<td>-</td>
<td>6</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (Policy &amp; Planning)</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (IT &amp; MIS)</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (Monitoring)</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (Structures, Buildings Designs &amp; Standards)</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (Roads Design) Research &amp; Consultancy (including Road Safety)</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (NH)</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (WB)</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (IDS)</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE (HR, Training &amp; Legal)</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CE ( Complaints &amp; PR)</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
4.7 MINIMUM NEEDS CORE STAFF CADRE STRENGTH FOR UP PWD

4.7.1 Training, Leave and Deputation Reserve

The above tables have been computed for the no. of persons required to be in position in identified assignments at all times. However, it is certain that not all personnel are present on duty in the respective posts due to various reasons as Leave, sickness, training and being away on deputations. The cadre strength (sanctioned strength) of PWD for minimum needs staffing would need to take into account ‘RESERVES’ for the above needs.

As per GOI norms, the cadre strength is calculated by adding the following reserve to the sanctioned positions:

a. Training Reserve @ 3.5 % of total posts
b. Leave Reserve @ 16.5 % of total posts
c. Deputation Reserve: calculated based on the actual needs.

For UPPWD the Training and leave reserve is taken as 20 % of total posts. The reserve for deputation posts are taken as per existing sanction (CE - 7, SE - 14 & EE – 40).

4.7.2 Computation of Minimum Needs cadre strength for UP PWD

In the following tables, the minimum needs staffing requirements are calculated including training & leave reserve requirements. This has been for the three cadres of Class I (EE’s and above), Class II (AE’s) and Class III (JE- Civil and JE-T)
Table 4.9: Minimum Needs cadre strength for UP PWD: Civil Engineers

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Duty posts</th>
<th>Training &amp; Leave Reserve @ 20% of total duty posts</th>
<th>Cadre strength</th>
<th>Existing sanction (2007)</th>
<th>Surplus / Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE &amp; Above</td>
<td>43</td>
<td>-</td>
<td>-</td>
<td>35</td>
<td>-</td>
</tr>
<tr>
<td>SE</td>
<td>138</td>
<td>-</td>
<td>-</td>
<td>85</td>
<td>-</td>
</tr>
<tr>
<td>EE</td>
<td>524</td>
<td>-</td>
<td>-</td>
<td>366</td>
<td>-</td>
</tr>
<tr>
<td>Total Class I</td>
<td>705</td>
<td>141</td>
<td>845</td>
<td>486</td>
<td>(-) 359</td>
</tr>
<tr>
<td>AE</td>
<td>1547</td>
<td>310</td>
<td>1857</td>
<td>1225</td>
<td>(-) 632</td>
</tr>
<tr>
<td>JE (Civil)</td>
<td>4354</td>
<td>871</td>
<td>5225</td>
<td>4176</td>
<td>(-) 1049</td>
</tr>
<tr>
<td>JE (Technical)</td>
<td>491</td>
<td>98</td>
<td>589</td>
<td>467</td>
<td>(-) 122</td>
</tr>
</tbody>
</table>

4.7.3 Computation of Longer Term (Year 2012) Minimum Needs Core Staff Cadre Strength for UP PWD

One of the major additions to the PWD functions during the next 5-10 years time span would be the responsibility of maintaining additional village roads on account of transfer of Orphan Roads/Roads constructed by PMGSY and other agencies. It is estimated that by the end of next 5 years an additional 50,000 Km of non-core roads will get added to PWD, which would necessitate additional Divisions. It is estimated that at least 2 non-core roads Divisions will be added to each Circle. Thus there would be additional 58 Divisions for non-core roads by 2012.

The minimum staffing need for additional 58 Divisions:

- EE : 58
- AE 58 × 4 : 232
- @ 4 AE per Division
- JE (Civil) 58 × 4 × 4 : 828
- @ 4 JE (Civil) per AE
- JE (T) @ 1 per Division : 58

The Longer-Term (2012) Minimum Needs core staff Cadre Strength for UP PWD with 58 Additional Non-Core Divisions is computed in Table 4.9 below:
Table 4.10: Longer-Term (2012) Minimum needs core staff Cadre Strength for UP PWD (with additional 58 non-core Divisions)

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Duty posts in 2007</th>
<th>Addl. duty posts in 2012</th>
<th>Total duty posts in 2012</th>
<th>Reserve @ 20% of duty posts</th>
<th>Cadre strength in 2012</th>
<th>Existing sanction (2007)</th>
<th>Surplus/Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE &amp; above</td>
<td>43</td>
<td>-</td>
<td>43</td>
<td>-</td>
<td>35</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SE</td>
<td>138</td>
<td>-</td>
<td>138</td>
<td>-</td>
<td>85</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EE</td>
<td>524</td>
<td>58</td>
<td>582</td>
<td>-</td>
<td>366</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Class I</strong></td>
<td><strong>705</strong></td>
<td><strong>58</strong></td>
<td><strong>763</strong></td>
<td><strong>153</strong></td>
<td><strong>916</strong></td>
<td><strong>486</strong></td>
<td><strong>(-) 430</strong></td>
</tr>
<tr>
<td>AE</td>
<td>1547</td>
<td>232</td>
<td>1779</td>
<td>356</td>
<td>2135</td>
<td>1225</td>
<td><strong>(-) 910</strong></td>
</tr>
<tr>
<td>JE (Civil)</td>
<td>4354</td>
<td>928</td>
<td>5282</td>
<td>1056</td>
<td>6338</td>
<td>4176</td>
<td><strong>(-) 2162</strong></td>
</tr>
<tr>
<td>JE (T)</td>
<td>491</td>
<td>58</td>
<td>549</td>
<td>110</td>
<td>659</td>
<td>467</td>
<td><strong>(-) 192</strong></td>
</tr>
<tr>
<td><strong>Total Class I</strong></td>
<td><strong>705</strong></td>
<td><strong>58</strong></td>
<td><strong>763</strong></td>
<td><strong>153</strong></td>
<td><strong>916</strong></td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
5. LONGER-TERM CORE STAFF STRATEGY AND STAFFING PLAN FOR PWD

For PWD to function effectively to fulfil the rapidly escalating societal expectations placed on it, it is essential that the PWD organisation have the right staffing at all levels and right people with necessary competencies and commitment are in right place at the right time. This calls for an appropriate staffing strategy and the necessary authorisations from the Government to implement the strategy in a consistent manner. Being a Government Department, PWD will continue to operate within the overall policies of the State Government and will need to develop a pragmatic strategy for speedy decisions from the Government for the organisational and HR change initiatives included in the IDS Action Plan.

The end result of a successful staffing strategy for PWD is to have the right people, in right numbers, with right skills, in right places, at the right time. The staffing activities have long lead times and lengthy procedures to be gone through. For example if PWD needs to recruit a batch of AE’s in 2009 the lead time may be as much as two years with actions initiated in 2007 to obtain approvals for the number to be recruited, requisitioning the State Public Service Commission (PSC) to include the recruitment in their plan, the PSC’s procedures for notifications, examinations and interviews, final selections, appointments; and on joining, an induction training program. Achievement of this objective is possible by first developing an appropriate HR (staffing) strategy for the short and medium term, get them pre-agreed by the Government; and based on the strategy, develop annual staffing plans and implement them consistently. PWD will need a proactive approach to plan and implement the staffing strategy. PWD, which accounts for almost one fourth of the budget of the State, can proceed in the reforms path by leveraging the tremendous strength of its size, reach and resources at its command. The need for advance planning and planned implementation by the dedicated HRD & Training Cell cannot be overemphasised.

5.1 DEVELOPMENT OF HR STRATEGY

The HR Strategic Management System consists of the following six specific steps in developing an HR Strategy:-

1. Setting the strategic direction
2. Designing the Human Resource Management System
3. Planning the total workforce
4. Generating the required human resources
5. Investing in human resource development and performance
6. Assessing and sustaining organisational competence and performance
The six broad interconnected components of this system consist of three planning steps and three execution steps. The top three components represent the need for planning. PWD must determine its strategic direction and the outcomes it seek. This is usually accomplished with some form of strategic planning. Classic strategic planning is a formal, top-down, staff-driven process. When done well, it is workable at a time when external change occurs at a more measured pace. However as the pace and magnitude of change increases, the approach to strategic planning changes substantially:

- First, the planning process needs to be more agile; changes in plans are much more frequent and are often driven by events rather than made on a predetermined time schedule.

- Second, the planning process is more proactive. Successful organizations no longer simply respond to changes in their environment, they proactively shape their environment to maximize their own effectiveness.

- Third, the planning process is no longer exclusively top-down; input into the process comes from many different organizational levels and segments. This creates more employee ownership of the plan and capitalises on the fact that often the most valuable business intelligence can come from employees who are at the bottom of the organizational hierarchy.

- Lastly, the strategic planning process should be less reactive and more driven by line leadership.

Once strategic planning is under way, a process must be undertaken by PWD to design and align its HRM policies and practices to provide for organizational success. The remaining step in planning is to determine the quality and quantity of human resources the organization needs for its total force. The rest of the HR strategic system exists for and is guided by these plans, policies, and practices. These execution components contain mechanisms that generate the correct skill sets, invest in staff development and performance, and productively employ them in the organisation. The last component provides a means to assess and sustain the competence and performance of the organization and the people in it with regard to outcomes that the organization seeks.

### 5.2 STAFFING STRATEGY FOR CORE STAFF

PWD will develop a longer term staffing strategy for the core staff for a 10-year horizon in conjunction with the PWD Strategic Plan and taking into account the projected changes in PWD workload and organisational redesign. The approved PWD staffing strategy paper will then form the basis for development of a staffing plan. The key parameters of staffing strategy will address to the following parameters.

1. Large scale shortage in the AE cadre to the extent of 45% of the existing sanctioned cadre strength. Only 676 AE’s were on rolls (as September 2007) against the sanctioned strength of 1225. Effectively the shortage is 52%, as 42 of the AE’s should have already been promoted as EE if timely promotions in all higher cadres were made.

2. The shortage in the JE cadre is 26%. This needs to be corrected for efficient field level working.
3. Shortages in the cadres of EE, SE, CE and E-in-C is however not a matter of concern as they need be filled through promotions. What is of concern is that the important senior level positions are allowed to remain vacant for long periods of time in spite of the fact that qualified staff at the next lower levels have been kept waiting for the same, having already waited too long in the queue. Many such staff members would even reach superannuation waiting for promotion, but not effected even when vacancies are there. This instance is an indicator of failure of the HR function in the organisation. Timely promotions are essential from organisational point, for having dedicated persons for performance of key tasks; and also for individuals who would have otherwise been promoted earlier.

4. Taking into account the estimation of minimum needs staffing for the reorganised PWD the gaps which need to be filled, is huge, as given at Table 4.8. In addition to these, staffing will be needed to address the existing shortages and the attritions expected. This will be discussed at another report (Report no. 43)

5. The average age of the PWD technical staff was estimated to be 47 years (2001 IDS Report). This is likely to have gone up by at least 2 years by now. This is a severe strain on field level working. Though this cannot be corrected quickly, the longer term staffing strategy would address to progressively reduce the average age.

6. The Career progression of PWD officers being very slow, the selected few who reach the top level positions of CE and E-in-C have generally very short tenures.

7. The average age of PWD staff suggests that in the next five years, about 25% of the technical staff would retire from service. This would deplete the experienced resources.

8. During the last 5 years the work load on PWD has increased by at least 3 times and this trend is likely to continue.

9. Since 1992 regular recruitments to the primary graduate engineers cadre has been stopped except under special category recruitment for SC/ST/OBC. The resulting backlog needs to be filled in a planned manner rather than in an ad hoc manner as per a thought out recruitment plan that

10. There is large scale discontinuity in the leadership pipeline on account of irregular recruitments. The stoppage of recruitments over the last 16 years would mean that the impact of this discontinuity would be felt acutely in next 10-15 years when there would be a severe crunch of mid level officers. The workforce planning exercise (to be carried out as per Report no. 43) would include a study of this effect.

11. PWD has been so far, a purely generalist service and any officer can be posted to any assignment. There are no specialists like transport planners, transport economists, environment planners, social specialists, HR specialists, training specialists, IT specialists etc. in the PWD cadres. Specialists are essential for the updated PWD mandate and the revised organisation structure in which dedicated Cells for specialist functions are included. The establishment of six cells for HRD and Training, Policy & Planning, Quality Management, Environment and Social development, Safety planning & Engineering and IT & MIS is already in progress.
5.3 CORE STAFF RESOURCE PLANNING

The staffing strategy, its relation with the PWD business strategy and the staffing plans that flows from the staffing strategy are shown in a relationship diagram in Fig. 5.1 below.

Figure 5.1: Flow Diagram: Staffing Strategy & Core Staff Resources Plan for UP PWD
5.4 STRATEGIC (LONG TERM) STAFF RESOURCE PLANNING PROCESS

The PWD Strategic HR Plan (Staff Resource Plan) will align the staff resources to the PWD vision and mission to support the goals and strategies of the department by addressing the gaps between future and present capability. The management of PWD have a responsibility to fulfil the stakeholders’ expectations in the areas of corporate governance, transparency of policies, accountability and economic efficiency. To achieve these responsibilities, PWD needs to be sure that the organisation have the right people, with the right skills, in the right place, at the right time to carry out the strategy.

The strategic HR plan supports and is aligned to the corporate mission, vision, values and strategies. It is an essential planning document. It is important that the strategic HR plan is developed only after a clear direction is established and understood. It is important that the PWD business strategy drives the strategic HR plan and not the other way round.

5.4.1 The Strategic HR plan

The PWD long term core staff resource plan (referred to as the HR Plan or Workforce Plan) will ensure that PWD has:

- the capacity to deliver on strategy
- the right people in place with right mix of skills
- skill development and training policies and practices are linked to strategy
- a succession planning process that is strategically linked
- HR practices that are consistent across the organisation
- identified and minimised capability risks
- a system for monitoring progress towards goals

5.4.2 Steps of HR Planning Process

Step 1: Identify future needs
Step 2: Take an accurate stock of present HR capability
Step 3: Identify gaps between present capability and future needs
Step 4: Formulate strategies to bridge the gaps and meet the future needs.
Step 1 Identify future HR needs

Using the PWD Strategic Plan as a guiding document, identify the future HR needs of the organisation addressing the following:

• What is the nature of PWD’s work?
• What type of culture will support productivity?
• What skills do we need to deliver results?
• Where are those skills and how are we tapping into them?
• How large is our organisation?
• What systems and processes do we need?
• How are we making sure peoples’ skills match our needs?
• What risks are associated with this future?

Step 2 Take Stock of Present HR Capability

• With the future in mind, what is PWD’s current capability?
• How is PWD doing in comparison to other benchmarked road agencies?
• What are PWD’s strengths and weaknesses?
• Are there legislative requirements we need to consider?
• What are we doing well now, that we need to do more of in the future?
• Where do the risks lie?
• What HR issues may prevent PWD from getting to the future, it has agreed to deliver?
• What current systems will support or hinder our progress?

Step 3 Identify gaps between present capability and future needs

Compare the future needs with the current capability and identify any significant gaps that appear. These can be in a number of areas including policies and procedures, capability, and resource allocation.

• Where are significant gaps between present and future?
• How can they be classified?

Step 4 Formulate strategies to bridge the gaps

The next stage is about identifying strategies that will address the gaps identified. These strategies will involve:

• job/work redesign
• organisational redesign
• selection/staffing
• performance management
• compensation/rewards
• training/development
• employee relations
• safety and health

Not all gaps will be of the same strategic importance, so PWD will need to set some priorities for dealing with them. For example PWD may find an urgent need to update its HR information system so it provides authentic and accurate information that is essential for tracking progress. Prioritisation may be made on the following criteria:

• What are the top priorities?
• Where can we get some rapid progress?
• How do these strategies fit with budgets?
• What is the degree of change needed?

Step 5 Develop detailed plans with measurable goals and milestones

The last step is to develop the level of detail that will give you measurable goals and milestones.

5.4.3 Information needed before the HR Planning process starts

Adequate data is will be needed to do this job thoroughly. The HR Planning team need to take the time to gather as much relevant information as possible. There are a variety of sources including:

• The strategic business plan
• An analysis of future work trends
• The existing HR plan
• Environmental data –information about the current HR situation in the wider public sector and future trends in the sector
• An audit of existing HR policies and practices – what are your strengths and weaknesses in this area
• Current data of the existing staff, their demographic details and professional competencies.
• Current information on competencies across the organisation
• Policies and processes related to training and development
• Present risk factors
• Any customer or stakeholder data on the HR performance of the organisation.
5.4.4 Who should be involved

PWD will need to strike a balance between too much input and too little. Think about the individuals inside and outside your organisation who have a strategic focus and are well informed. It is useful to get outside facilitation, either from within the organisation or from a consultant. This will allow the HR team to contribute to the process. In Steps 1 & 2 get a wide variety of input. Those involved can include:

- Senior management team
- HR group staff
- HR professionals
- Key stakeholders
- People from related organisations
- A cross section of staff.

In steps 3 & 4 it would be possible to narrow the input to those who are skilled in project planning and management.

5.4.5 Implementation and monitoring of the HR plan

Getting buy-in to the plan is important. The senior team and those involved in the HR function throughout the organisation, which increasingly is all managers, need to understand and support the plan. Their input is important during the implementation and monitoring phase.

Once the plan has been developed to a degree of detail that measures end goals and milestones, it is relatively easy to monitor progress. The plan will be reviewed on an annual basis at the very least, to check the progress and equally importantly, to check the assumptions on which the plan was based.

HR strategic planning is as essential as financial planning in ensuring that the organisation achieves its goals. The HR strategic plan informs and supports policies which align and grow the skills of the people. In this sense it needs to be treated as a living document.

5.5 WAY FORWARD FOR FORMULATION OF STRATEGIC HR PLAN FOR UPPWD

The formulation of Strategic HR plan and workforce plan are major HR intervention exercises, which would require considerable resources and time. The activity would necessarily require a team of dedicated HR professionals working along some external resources and involvement of the top management and a wide cross section of staff. Implementation of the plans is another challenge.

The methodology and suggested approach to Workforce planning in UP PWD will be discussed in great detail in two of the forthcoming reports:
Report No. 43: Report to implement PWD specific Human Resource Planning and Management Programme

Report No. 49: Report for implementation of CSR linked PWD HR Planning and Development Program.

The suggested flow diagram of the HR Strategy and HR Planning processes is given at Fig. 5.2 below.
Figure 5.2: PWD Strategic HR Planning

- Estimated Staffing Needs
- Existing Staffing
- Attrition of Existing Staff
- Gap Analysis
- Staffing Plan
- Annual Recruitment Plan

- Organisation Level Plans
  - Staff Recruitment Plan
  - Staff Training and Development Plan
  - Staff Promotion Plan
  - Staff Succession Plan

- HR Policies
  - Recruitment Policy
  - Training Policy
  - Promotion Policy
  - Transfer Policy

- Individual Level Plans
  - Performance Planning & Management
  - Training Needs Identification
  - Individual Training & Development Plan
  - Career Development Plan
5.6 DISCUSSION IN THE FOCUS GROUP

The Report, along with Report No. 15, was discussed in the meeting of the Focus Group ‘E’ on HR and Training on 22 November 2007. The meeting also included the newly appointed EE in the HRD Cell (Mr. Sumesh Kumar Sinha) and the CE (HQ II) (Mr. Shailendra Kumar) under whose charge the HRD and Training Cell is formed.

The two reports were taken up together as both of them pertain to ‘staffing needs’ of PWD and the HR Strategy and HR Planning process required to be established in the PWD. The Report No. 27, additionally to takes into account the developments / progress / guidelines that have been made by the Civil Service Reform (CSR) initiatives.

Suggestions offered by the Focus Group Members have been incorporated in the Final Report.

5.7 ACTION PLAN

The suggested Action Plan during next 6 months for implementation of HR Strategy (Report No. 15) and CSR Compatible HR Planning (Report No. 27) in PWD by the HRD and Training Cell during next 6 months is given below:

<table>
<thead>
<tr>
<th>Action Plan</th>
<th>DEC</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Firm up minimum needs long term staff requirements (5 year / 10 years perspective) in conjunction with progressive restructuring of PWD organisation (Implementation of Report No. 11).</td>
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<tr>
<td>2. From the 5 years / 10 years staff forecast, draw up annual staff needs (Demand forecast) for each of the next 5 years and obtain GoUP agreements.</td>
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<tr>
<td>3. Formulate PWD Long Term HR Strategy as a component of PWD 5 years / 10 years Strategic Plan).</td>
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<tr>
<td>4. Establish an HRMIS System for provide HR data for HR Planning.</td>
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<tr>
<td>5. Organise an HR Planning Group in PWD and provide orientation to them through reputed institution / consultant to carry out HR Planning tasks.</td>
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<tr>
<td>6. HR Planning Group develops the annual HR Plans including Recruitment Plan, Succession Plan, Promotion Plan, Career Development Plan &amp; Training Plans etc.</td>
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<tr>
<td>7. Implement the HR Plans, Review and Refine.</td>
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</tr>
</tbody>
</table>

Ongoing
6. PRESENTATION TO PROJECT STEERING COMMITTEE

Combined presentation for Report No. 15 and 27.
The two Reports are presented together. Both pertain to STAFFING:

- Staff Requirements for UP PWD in Longer Term: 5 to 10 years in future
- Staffing Needs derived from the estimated Functional Workload of PWD
- Focus on the ‘CORE STAFF’ requirements
- Compatible with Civil Service Reforms
# PWD Focus Group – E / HRD & Training Cell

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sri Afsar Husain</td>
<td>Chief Engineer (Complaints)</td>
</tr>
<tr>
<td>Sri Shailendra Kumar</td>
<td>Chief Engineer, HQ-II (Incharge-HRD &amp; Training )</td>
</tr>
<tr>
<td>Sri Sushil Kumar</td>
<td>SE, Bulandshahar Circle, Bulandshahar</td>
</tr>
<tr>
<td>Sri Sumesh Kumar Sinha</td>
<td>EE, HRD &amp; Training Cell</td>
</tr>
<tr>
<td>Sri Jitendra Kumar Srivastava</td>
<td>EE, PD, Farukhabad</td>
</tr>
<tr>
<td>Sri Arun Kumar Srivastava</td>
<td>EE, CD 1, Bahraich</td>
</tr>
<tr>
<td>Sri V. K. Rai</td>
<td>AE, Planning 1, Lucknow</td>
</tr>
<tr>
<td>Sri Salil K. Yadav</td>
<td>AE, W.B. Division 1, Lucknow</td>
</tr>
<tr>
<td>Sri P. K. Saxena</td>
<td>EE</td>
</tr>
<tr>
<td>Sri Sandeep Saxena</td>
<td>AE, IDS Cell</td>
</tr>
</tbody>
</table>

**LEA International Ltd. and LEA Associates South Asia Pvt. Ltd.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cdr. Narayan Mishra</td>
<td>Human Resource Management Specialist</td>
</tr>
</tbody>
</table>
The IDS Action Plan on Human Resource Planning and Development programme includes:

- manpower need assessment
- human resource Planning,
- human resource development policy/guidelines,
- training & development

The IDS Tasks related to these reports are:

“Implement progressive PWD restructuring and staffing realignment”

“Conduct systematic PWD functional workload and manpower study to determine longer term ‘minimum needs’ staffing strategy“

“Confirm long-term CSR-compatible ‘core staff resources’ plans with GoUP performance appraisal policy and processes” and finally,

“Implement PWD specific HR Planning and Management programme”.
Reports 15 & 27 : PWD Long Term Staffing Needs and Staff Resources Plans

The Reports Cover:

• Estimation of PWD Functional Workload in Longer-Term on account of enhanced responsibilities and volume of works

• Proposed Restructuring of the PWD Organisation (Report No.11) and the staffing requirements for the same.

• Computation of Staff requirements of Core Staff (Engineering cadres from JE level to E-in-C level.

• Need for a systematic strategic HR Planning in PWD to meet the staffing requirements.

• Recommendations for establishing a system for formulating HR Strategy and HR Staff Planning in PWD

Implementation of PWD specific HR Planning and Management program will be taken up in next reports no. 43 and 49.
Reports 15 & 27 : PWD Long Term Staffing Needs and Staff Resources Plans

Civil Service Reforms (CSR) and Staff Resource Planning


“….the strategy for future human resource development would be capacity building of all the government servants, especially those working at the middle and local level.

Constant up-gradation of knowledge, skills and attitude of civil servants working at all levels of the government, The goal of training for all, as stated in the national and state training policies, to be realized through sustained efforts and interventions.

Institutionalisation of best practices in civil service administration and their documentation for institutional memory.

Suitable systems are developed so that timely decision making could be encouraged and promoted. Greater use of Information Technology (IT).

Specialization to be encouraged among the Group A and B level civil servants”
Civil Service Reforms (CSR) and Staff Resource Planning in UP PWD

Present Status

• No specific actions/directives on Staff Resource Planning under the CSR program.
• No long term (5/10 year) staffing plan formulated in PWD.
• No annual staffing Plan for PWD issued.
• There has been no fresh recruitments during the last 5 years.
• Depleting staff resources on account of high attritions makes Staff resource planning an urgent need.
Basis of Staff Resource Planning

- Current practices of Strategic Manpower Planning followed in large professional organisations.

- HR Strategy is an integral component of the business strategy. The Strategic goals of an organisation are to be achieved by the Human Resources.

- References taken from the best practices on staff resource planning followed in similar large Government Departments.

- The guidelines issued by Government of India, Department of Personnel on cadre structure review mechanisms.

- Proposed restructuring of PWD and the consequent staffing readjustments arising from it.
MAJOR FUNCTIONAL TASKS TO BE EMPHASIZED IN PWD

• Road Network Planning
• Road Development, Maintenance and Management Functions
• Business Planning and Funding
  ➢ Strategic Plans, annual business Plans & annual reports by the Policy and Planning Unit
  ➢ Establishing & managing a dedicated Road Fund
• Capacity Building: Developing the Organization and Management
• Mitigating Environmental and Social Impacts
• Strategic Road Network Planning
• Establish a GIS / RMMS System
• Road Safety
• Asset Management
• Private Sector Participation
• Planning for Integrated multi-modal transportation
MAJOR FUNCTIONAL TASKS TO BE EMPHASIZED IN PWD:

New Units/Cells for Specialist Functions

1. HRD and Training
2. Environmental and Social Development
3. Quality Management
4. Projects Policy and Planning
5. IT Management and Planning
6. Road Safety Planning and Engineering
7. PSP/PPP Development. UPSHA, created for the purpose.
CATEGORISATION OF CIVIL ENGINEERING STAFF

Based on the types of entry, minimum qualifications and career pattern.

**Graduate Engineers:** Minimum qualification for entry: Degree in Civil Engineering. The recruitments by the State Public Service commission.

Consists of AEs (class II) and Class I officers in the ranks of EEs, SEs, CEs and E-in-Cs. Entry is at the level of AE only. Higher level positions are filled by promotions from the next lower levels.

**Diploma Engineers:** Minimum qualification: Diploma in Civil Engineering. Recruitment by the Staff Selection Commission.

**Other Technical Staff:** Draughtsmen & Tracers. ITI qualified in the respective discipline. The number of staff in this category is small and showing a dwindling trend.
### Reports 15 & 27: PWD Long Term Staffing Needs and Staff Resources Plans

#### Existing UP PWD Zones, Circles and Divisions (Sep 07)

<table>
<thead>
<tr>
<th>Details</th>
<th>Zones</th>
<th>Circles</th>
<th>Total Circles</th>
<th>Divisions</th>
<th>Total Divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Working</td>
<td>Non-working</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil</td>
<td>12</td>
<td>29</td>
<td>3</td>
<td>32</td>
<td>160</td>
</tr>
<tr>
<td>National Highways</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>World Bank</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>PMGSY</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>9</td>
<td>55</td>
</tr>
<tr>
<td>Electrical and Mechanical</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Maintenance (Building)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DASP/SODIC</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>7</td>
<td>60</td>
<td>273</td>
<td>298</td>
</tr>
</tbody>
</table>
PROPOSED RESTRUCTURING OF PWD: PWD HQ

New Units / Cells to be established in PWD

1. HR and Training
2. Projects Policy and Planning
3. IT Management and Planning
4. Quality Management
5. Environmental and Social Development
6. Road Safety Planning and Engineering

* CE UPIDS will continue till the implementation of IDS Project
PROPOSED RESTRUCTURING OF PWD : CIRCLE

Superintending Engineer Circle

- Core Road (CR)
- Non Core Road (NCR)

Executive Engineer Project Management

- Assistant Finance Manager
- MBS, RMBS and GIS: AE
- Project Planning and Preparation: AE

EE Quality Audit

Division Core Roads (CR) EE

Division Core Roads (CR) EE

Division Non Core Roads (NCR) EE

These Officers are based in Divisions and not in Circle Offices

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Division Non Core Roads (NCR) EE

Electrical and Mechanical EE

Technical EE

- Structures and Roads Buildings AE
- Quality Management AE
- Road Safety, Environmental & Social AE
PROPOSED RESTRUCTURING OF PWD: DIVISION

Core Roads - Option - 2A

Executive Engineer

Assistant Engineer

Assistant Engineer

Assistant Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Non-Core Roads - Option - 2B

Executive Engineer

Assistant Engineer

Assistant Engineer

Assistant Engineer

Assistant Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Assistant Engineer

Assistant Engineer Electrical and Mechanical

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer

Junior Engineer
### Existing Manpower Position

<table>
<thead>
<tr>
<th>Designation / Position</th>
<th>(Total Number of Officers)</th>
<th>Sanctioned Post</th>
<th>In-position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>General</td>
<td>Deputation</td>
</tr>
<tr>
<td>Engineer-in-Chief (ENC)</td>
<td></td>
<td>3</td>
<td>Nil</td>
</tr>
<tr>
<td>Chief Engineer (CE) Civil – Level I</td>
<td></td>
<td>3</td>
<td>Nil</td>
</tr>
<tr>
<td>Chief Engineer (CE) Civil – Level II</td>
<td></td>
<td>29</td>
<td>7 (out of 29)</td>
</tr>
<tr>
<td>Chief Engineer (CE) Electrical/Mechanical</td>
<td></td>
<td>1</td>
<td>Nil</td>
</tr>
<tr>
<td>Superintending Engineer (SE) Civil</td>
<td></td>
<td>85</td>
<td>14 (out of 85)</td>
</tr>
<tr>
<td>Superintending Engineer (SE) Electrical/Mechanical</td>
<td></td>
<td>4</td>
<td>Nil</td>
</tr>
<tr>
<td>Executive Engineer (EE) Civil</td>
<td></td>
<td>366</td>
<td>40 (out of 366)</td>
</tr>
<tr>
<td>Executive Engineer (EE) Electrical/Mechanical</td>
<td></td>
<td>28</td>
<td>1 (out of 28)</td>
</tr>
<tr>
<td>Assistant Engineer (AE) Civil</td>
<td></td>
<td>1225</td>
<td>Nil</td>
</tr>
<tr>
<td>Assistant Engineer (AE) Electrical/Mechanical</td>
<td></td>
<td>124</td>
<td>Nil</td>
</tr>
<tr>
<td>Junior Engineer (JE) Civil</td>
<td></td>
<td>4176</td>
<td>Nil</td>
</tr>
<tr>
<td>Junior Engineer (JE) Electrical/Mechanical</td>
<td></td>
<td>322+385</td>
<td>Nil</td>
</tr>
<tr>
<td>Junior Engineer (JE) T</td>
<td></td>
<td>467</td>
<td>Nil</td>
</tr>
<tr>
<td>Draftsman</td>
<td></td>
<td>319</td>
<td>Nil</td>
</tr>
<tr>
<td>Tracer</td>
<td></td>
<td>208</td>
<td>Nil</td>
</tr>
</tbody>
</table>
**Computation of Staffing Requirements SE, CE & E-n-C**

<table>
<thead>
<tr>
<th>Post</th>
<th>Duty Posts</th>
<th>Existing Sanction</th>
<th>Surplus +/- Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>DG (Works)</td>
<td>1</td>
<td>-</td>
<td>(-) 1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>ADG (Works)</td>
<td>1</td>
<td>-</td>
<td>(-) 1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>E-in-C</td>
<td>5</td>
<td>3</td>
<td>(-) 2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>CE (Civil)</td>
<td>36</td>
<td>(including 7 deputation)</td>
<td>(-) 4</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total CE &amp; above</td>
<td>43</td>
<td>35</td>
<td>(-) 8</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>SE (Civil)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. HQ SE positions (Table 4.7)</td>
<td>27</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Zonal HQ : 15 x 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(PWD 12 + PMGSY 3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. PWD Circles : 29 x 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. WB Circles : Circles : 9 (7 + 2)</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>1. PMGSY Circles : 9 (8 + 1)</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>1. NH Circles : 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Building Circles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Cadre Posts</strong></td>
<td><strong>124</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Deputations (as per existing sanction)</td>
<td>14</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total SE (Civil)</strong></td>
<td><strong>138</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total SE (Civil) (including 14 deputation) 85 (-) 53 73
## Computation of Staffing Requirements: EE (CIVIL)

<table>
<thead>
<tr>
<th>Post</th>
<th>Duty Posts</th>
<th>Existing Sanction</th>
<th>Surplus +/- Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PWD Divisions (2 Core road divisions &amp; 4 non core road divisions) per circle 2 (Core Roads) × 29 circles = 58 4 (Non-Core Roads) × 29 circles = 116</td>
<td>174</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. PMGSY Divisions</td>
<td>57</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. WB Divisions</td>
<td>18</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. NH Divisions</td>
<td>17</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. Building Division</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. HQ Positions ((Table 4.7)</td>
<td>47</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. Zonal Head Quarters (12 PWD Zone + 3 PMGSY Zone) @ 8 per Zonal HQ</td>
<td>120</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. Circle HQ ( + 8 PMGSY + 4 NH + 7 WB) 48 × 1 EE per Circle HQ</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1. Deputation Posts (as per current sanction)</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total EE (Civil)</strong></td>
<td><strong>524</strong></td>
<td><strong>366</strong></td>
<td><strong>(-) 158</strong></td>
<td><strong>349</strong></td>
<td><strong>-</strong></td>
</tr>
</tbody>
</table>
### Reports 15 & 27: PWD Long Term Staffing Needs and Staff Resources Plans

#### Computation of Staffing Requirements: AE (CIVIL)

<table>
<thead>
<tr>
<th>Post</th>
<th>Duty Posts</th>
<th>Existing Sanction</th>
<th>Surplus +/- Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In Divisions 174+57+18+7 = 266 @ 4 AEs per Division: 266 × 4</td>
<td>1064</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>+ 3 Building Division</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HQ Positions ((Table 4.7))</td>
<td>57</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Zonal HQ - 15 × (2 AEs per EE) 15 × 7 × 2</td>
<td>210</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Circle HQ - (4 per circle HQ) 48 circles × 4</td>
<td>288</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Building Division: 3 × 4</td>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total AE (Civil)</strong></td>
<td><strong>1547</strong></td>
<td><strong>1225</strong></td>
<td><strong>(-) 322</strong></td>
<td><strong>676</strong></td>
<td>The shortage in the cadre is critical.</td>
</tr>
</tbody>
</table>
### Reports 15 & 27: PWD Long Term Staffing Needs and Staff Resources Plans

**Computation of Staffing Requirements: JE (CIVIL)**

<table>
<thead>
<tr>
<th>Post</th>
<th>Duty posts</th>
<th>Existing Sanction</th>
<th>Surplus +/- Deficit -</th>
<th>Present Sept 07</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>JE (Civil)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divisions 266 × 16 @ 4 JEs per AE</td>
<td>4256</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Building Division</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HQ &amp; Miscellaneous (Table 4.7)</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total JE (Civil)</strong></td>
<td>4354</td>
<td>4176</td>
<td>(-) 178</td>
<td>3087</td>
<td></td>
</tr>
<tr>
<td><strong>JE CIVIL (Technical)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divisions 266 × 1</td>
<td>266</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provincial Division @ 1 JE (T)</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circles 48 × 2</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zone Circles 15 × 2</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Miscellaneous</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HQ (Table 4.7)</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total JE (Technical)</strong></td>
<td>491</td>
<td>467</td>
<td>(-) 24</td>
<td>325</td>
<td></td>
</tr>
</tbody>
</table>
Minimum Needs cadre strength for UP PWD: Civil Engineers

(Duty Posts + Training & Leave Reserves)

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Duty posts</th>
<th>Training &amp; Leave Reserve @ 20% of total duty posts</th>
<th>Cadre strength</th>
<th>Existing sanction (2007)</th>
<th>Surplus / Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE &amp; Above</td>
<td>43</td>
<td></td>
<td></td>
<td>35</td>
<td>-</td>
</tr>
<tr>
<td>SE</td>
<td>138</td>
<td></td>
<td></td>
<td>85</td>
<td>-</td>
</tr>
<tr>
<td>EE</td>
<td>524</td>
<td></td>
<td></td>
<td>366</td>
<td>-</td>
</tr>
<tr>
<td>Total Class I</td>
<td>705</td>
<td>141</td>
<td>845</td>
<td>486</td>
<td>(-) 359</td>
</tr>
<tr>
<td>AE</td>
<td>1547</td>
<td>310</td>
<td>1857</td>
<td>1225</td>
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<tr>
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<td>4354</td>
<td>871</td>
<td>5225</td>
<td>4176</td>
<td>(-) 1049</td>
</tr>
<tr>
<td>JE (Technical)</td>
<td>491</td>
<td>98</td>
<td>589</td>
<td>467</td>
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</table>
Minimum Needs Cadre Strength for UP PWD: Civil Engineers in 2012
(Duty Posts + Training & Leave Reserves)

(2 additional Non-Core Road Divisions in each Circle to look after PMGSY constructed and other village roads)

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Duty posts in 2007</th>
<th>Addl. duty posts in 2012</th>
<th>Total duty posts in 2012</th>
<th>Reserva @ 20% of duty posts</th>
<th>Cadre strength in 2012</th>
<th>Existing sanction (2007)</th>
<th>Surplus/Deficit</th>
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<tr>
<td>CE &amp; above</td>
<td>43</td>
<td>-</td>
<td>43</td>
<td>-</td>
<td>35</td>
<td>-</td>
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<td>SE</td>
<td>138</td>
<td>-</td>
<td>138</td>
<td>-</td>
<td>85</td>
<td>-</td>
<td>-</td>
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<tr>
<td>EE</td>
<td>524</td>
<td>58</td>
<td>582</td>
<td>-</td>
<td>366</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total Class I</td>
<td>705</td>
<td>58</td>
<td>763</td>
<td>153</td>
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<td>659</td>
<td>467</td>
<td>(-) 192</td>
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</table>
6 STEPS OF PWD HR STRATEGY

• Setting the strategic direction; PWD vision, mission and strategic plan.
• Designing the Human Resource Management System
• Planning the total workforce
• Generating the required human resources
• Investing in human resource development and performance
• Assessing and sustaining organisational competence and performance
HR Strategy to take care of

- Large scale shortage in the AE cadre to the extent of 45% of the existing sanctioned cadre strength. Only 676 AE’s were on rolls (in September 2007) against the sanctioned strength of 1225. Effectively the shortage is 52% (42 of the AE’s should have already been promoted to higher vacant positions).

- Shortages in the cadres of EE, SE, CE and E-in-C is however not a matter of concern as they need be filled through promotions. What is of concern is that the important senior level positions are allowed to remain vacant for long periods of time in spite of the fact that qualified staff at the next lower levels have been kept waiting for the same.

- The shortage in the JE cadre is 26% which is detrimental to efficient field level working.
HR Strategy to take care of

- Estimated gap in staff available vs needs is huge. nised PWD the gaps which need to be filled, is huge, as given at Table 4.8. In addition to these, staffing will be needed to address the existing shortages and the attritions expected. This will be discussed at another report (Report no. 43).

- The average age of the PWD technical staff was 47 years (2001 IDS Report). Likely to have gone up by a few years by now. The longer term staffing strategy would address to progressively reduce the average age.

- The Career progression of PWD officers being very slow, the selected few who reach the top level positions of CE and E-in-C have generally very short tenures.

- The average age of PWD staff suggests that in the next five years, about 25% of the technical staff would retire from service. This would deplete the experienced resources.

- During the last 5 years the work load on PWD has increased by at about 4 to 5 times. This trend is likely to continue.
Reports 15 & 27 : PWD Long Term Staffing Needs and Staff Resources Plans

HR Strategy to take care of ...

- Since 1992 regular recruitments to the primary graduate engineers cadre has been stopped except under special category recruitment for SC/ST/OBC. The resulting backlog needs to be filled in a planned manner as per a thought out recruitment plan rather than in an ad hoc manner.

- There is large scale discontinuity in the leadership pipeline on account of irregular recruitments. The stoppage of recruitments over the last 16 years would mean that the impact of this discontinuity would be felt acutely in next 10-15 years. There would be a severe crunch of mid level officers.

- PWD has been a purely generalist service and any officer can be posted to any assignment. There are no specialists like transport planners, transport economists, environment planners, social specialists, HR specialists, training specialists, IT specialists etc. in the PWD cadres. Specialists are essential for the updated PWD mandate and the revised organisation structure in which dedicated Cells for specialist functions are included.
HR (Staffing) Strategy

Govt. Level Strategic Goals
Policies & Plans
Transport Sector Plans
Five Year Plans

PWD Vision & Mission
Strategic Plans, Policies

PWD Annual Business Plans
Works Programs

HR (Staffing) Strategy

HR (Staffing) Plans

Organisation Level Plans
- Staff Recruitment Plan
- Staff Training & Dev. Plan
- Staff Promotion Plan
- Staff Succession Plan

HR Policies
- Recruitment Policy
- Training Policy
- Promotion Policy
- Transfer Policy
- Career Development Policy

Individual Level Plans
- Performance Planning & Management
- Training Needs Identification
- Individual Training & Development Plan
- Career Development Plan
Reports 15 & 27: PWD Long Term Staffing Needs and Staff Resources Plans

Steps of HR Planning Process

Step 1: Identify future needs
Step 2: Take an accurate stock of present HR capability
Step 3: Identify gaps between present capability and future needs
Step 4: Formulate strategies to bridge the gaps and meet the future needs.
Reports 15 & 27: PWD Long Term Staffing Needs and Staff Resources Plans

HR (Staffing) Plans

- Govt. Level Strategic Goals
- Policies & Plans
- Transport Sector Plans
- Five Year Plans

- PWD Vision & Mission
- Strategic Plans, Policies

- PWD Annual Business Plans
- Works Programs

HR (Staffing) Strategy:

- Estimated Staffing Needs
- Existing Staffing
- Attrition of Existing Staff
- Gap Analysis
- Staffing Plan
- Annual Recruitment Plan
  - Numbers & Levels
  - Skill set requirements
  - Induction Plan

- Organisation Level Plans
  - Staff Recruitment Plan
  - Staff Training and Development Plan
  - Staff Promotion Plan
  - Staff Succession Plan

- HR Policies
  - Recruitment Policy
  - Training Policy
  - Promotion Policy
  - Transfer Policy
  - Career Development Policy

- Individual Level Plans
  - Performance Planning & Management
  - Training Needs Identification
  - Individual Training & Development Plan
  - Career Development Plan
HR Planning process

• Adequate data is needed to do HR Planning thoroughly. The HR Planning Team need to take the time to gather as much relevant information as possible. There are a variety of sources including:

• The strategic business plan
• An analysis of future work trends
• The existing HR plan
• Environmental data – information about the current HR situation in the wider public sector and future trends in the sector
• An audit of existing HR policies and practices – what are your strengths and weaknesses in this area
• Current data of the existing staff, their demographic details and professional competencies.
• Current information on competencies across the organisation
• Policies and processes related to training and development
• Present risk factors
• Any customer or stakeholder data on the HR performance of the organisation.
ANNEXURE – 1 : CADRE REVIEW OF CENTRAL SERVICES

GROUP ‘A’ SERVICES - DETAILED GUIDELINES

INTRODUCTION

1. The Administrative Reforms Commission which examined the existing machinery for the management of different All-India and Central Services Cadres, had in their Report on Personnel Administration made the following recommendations:-

   a. For all Services advance projections should be made of the requirements of personnel for five years at a time. Mid-term appraisal also should be made if circumstances warrant it and necessary correctives made on the basis of the appraisal.

   b. Such projections should be made by cadre management committees which should be constituted in the manner described.

2. The Government of India accepted the above recommendations with modifications that cadre review should be made every three years instead of every five years; and that while the user interests need not be associated with the review committees, their requirements may be taken into consideration while making the reviews. It was also laid down that the composition of the Cadre Review Committee would be as follows:-

   i. Cabinet Secretary - Chairman

   ii. Secretary, Ministry of Finance, Deptt. Of Expenditure - Member

   iii. Secretary, Deptt. of Personnel & Training - Member

   iv. Secretary of the Ministry controlling the cadre – Member

At later stages, the Defence Secretary and the senior most member of the cadre under review were also included as members in the Cadre Review Committee.

3. The Department of Personnel & A.R., after studying details of various measures taken by the cadre authorities towards scientific management of their cadres, formulated certain broad guidelines for objective cadre management and circulated the same to all concerned Departments, vide O.M.No.5/1/71-PP (Vol.VI) dated the 6th May,1972,with the request that they set up Cadre Review Committees in the manner prescribed and arrange to have the cadre structures reviewed on a priority basis. This was followed up in March, 1973 by an ‘Approach-Note’ on cadre review delineating the various aspects to be considered while preparing proposals for cadre strength reviews.
4. The Third Pay Commission recommended the creation of a standing 'Body on Pay and Cadre Management' to be headed by a serving or retired Judge of the Supreme Court or a High Court and having four non-functional members with experience of problems connected with Pay determination job-evaluation, personnel management and other allied matters. While this specific recommendation was not accepted by the Government, it was nonetheless decided that:-

a. A unit may be set up, if necessary, in due course in the Ministry of Finance for dealing with cases of limited pay revisions. In the meanwhile, cases which may arise relating to job evaluation or revision of pay scale of any particular category (including creation of a new pay scale where necessary) may be dealt with in that Ministry according to normal procedure; and

b. The Department of Personnel & A.R., who are dealing at present with matters relating to cadre management of the all-India and Central Class-I services may also set up a unit, if necessary, in due course for advising the Ministries/Departments of cadre management of various services in Class-II and III as well.

Role of the Department of Personnel & A.R.

5. The Department of Personnel & A.R. is closely associated with work relating to cadre review of various Services. The Department issues guidelines regarding policy and methodology of cadre reviews, examines the proposals prepared by the concerned cadre controlling authority and prepares an analytical brief containing the views of the Department of Personnel & A.R. for the use of members of the Review Committee. The Department maintains liaison with the cadre authorities and provides guidance and expertise in the formulation of proposals for periodic reviews of cadre strength. Recently, it has been decided that the department should take more initiative in regard to the cadre reviews instead of leaving it with the concerned Ministries.

Need for re-orientation of the review process.

6. The overall approach to cadre strength review has recently been re-examined in the Department of Personnel & A.R. in the light of experience gained so far. It has been observed that despite circulation of broad guidelines and the Approach Note (referred to in the earlier paragraphs), the cadre review proposals prepared by the Departments continue to suffer from a number of deficiencies. In particular, the following considerations which are pertinent in determining cadre strength of various Services do not seem to have received adequate attention of cadre authorities:-

a. projection of manpower requirements on scientific lines;

b. utilisation of cadre posts and deployment of cadre officers;

c. objective assessment of future promotion prospects;

d. rationalisation of cadre structure;
e. the level(s) at which various reserves are to be created, their quantum and utilisation and
f. formulation of a realistic recruitment plan.

Keeping in view the above mentioned factors and the comments of various departments, a revised comprehensive set of guidelines has now been drawn up on the subject. The new guidelines which are elaborated in the ensuing sections should facilitate framing of proposals for triennial reviews of cadres with a full understanding of the principles involved. A set of format which may be used in this regard is appended

DETAILED GUIDELINES FOR THE FORMULATION OF CADRE STRUCTURE REVIEW PROPOSALS.

Objectives

7. The basic objectives of periodical review of a cadre are as follow:-

   a. To make advance projections of requirements of personnel for the next three years and to plan recruitment programme on a scientific basis; and

   b. To bring about rationalisation of cadre structure with a view to improving the efficiency and morale and enhancing the effectiveness of the Service.

Need for advance planning of personnel requirements:

8. The need for advance planning of the requirements of personnel is to be stressed for following reasons:-

   a. Timely recruitment of personnel in adequate numbers is essential to prepare them for future deployment.

   b. The process of getting the new posts sanctioned is time consuming.

   c. In the absence of advance planning of manpower requirements, there may be violent fluctuations from time to time in the rate or recruitment with obvious adverse effects on the quality of recruits and cadre management.

Rationalising cadre structure

9. The cadre structure of a Service should satisfy the following criteria:-

   a. Different grades of the Service should reflect distinctly different levels of duties and responsibilities;

   b. Structure of the cadre should be such as to facilitate smooth movement of personnel, both vertical as well as horizontal; and

   c. It should promote maximum efficiency commensurate with economy expenditure.
Cadre Strength

10. Basic constituents of a Central Group `A' Service(cadre) should normally be:-
   
a. Regular duty posts;
   b. Probationers reserves; and
   c. Other reserves, viz.
      i. Leave Reserve
      ii. Training Reserve; and
      iii. Deputation Reserve.

The sum total of (a) to (c) would represent what may be called the authorised strength of the cadre of Service. These terms are explained in the following paragraphs:-

Regular Duty Posts:

11. Regular duty posts are those posts in the cadre which carry the functions that fulfil the objectives for which the Service was constituted.

Probationers Reserve

12. Direct recruits are normally given initial training for periods ranging from one year to three years while on probation. The posts against which they are shown during the training period, which includes post-entry institutional as well as on-job training should not be included in the strength of regular duty posts, but should be shown separately as probationers reserve. In case such reserve already forms part of junior duty posts or other reserves, necessary adjustment will have to be made to show it as a separate reserve. If the period of training of a probationer is one year, the size of probationers reserve should be equal to the size of one batch of direct recruits; if the period of training is 2 years, the reserve has to be double the size of a batch; and so on. Where the size of recruitment varies from year to year, the maximum recruitment in one year during the period of review may be taken as the basis for determination of size of reserve.

Other Reserve

13. `Other' reserves comprise leave, training and deputation reserves. There is an important difference between the probationers reserve and `other' reserves. The former is set apart for a definite category of service personnel. viz. fresh recruits directly appointed to the lowest rung of the Service. The latter serve a more general purpose of providing substitutes against vacancies caused due to Service officers proceeding on long leave, training or deputation. For every officer shown against other reserves, there should thus be one officer on leave, training or deputation. Those reserves are needed in order to ensure that the regular duty posts are continuously manned by competent officers and are ordinarily created in the entry grade of the Service. Broad guideline for arriving at the appropriate size of various reserves are given below:-
Leave Reserve

14. Actual utilisation of leave by officers (for at least 45 days at a time) and the utilisation of the existing leave reserve (if any) by the Department during the preceding 3 to 5 years should normally determine the size of leave reserve. In addition, the practicability of filling up of leave vacancies, especially where the duty posts are widely scattered over field formations, may also be examined while determining desired size of the leave reserve.

Training

15. The imperative need for imparting on the job refresher/ professional training periodically to the personnel at various levels of the Service in order to equip them to meet the growing challenges of developmental administration can hardly be over-emphasised. For this purpose, a training reserve of an appropriate size will have to be provided for the cadre structure. The size is to be worked out on the basis of past experience (of, say, the last 5 years) and a well drawn-out programme for training of officers over the next 3 years.

Deputation Reserve

16. Officers of organised Service are in constant demand for manning posts on deputations in the Secretariat and other Headquarter Organisations, Public Sector undertakings etc. Spells of deputation to such ex-cadre posts afford the officers an opportunity to apply and test their knowledge, skills and talents in new fields and situations. Deputation also helps in imparting fresh outlook to their work on return to their organisation. However, while sending officers on deputation, it should be ensured that the essential needs of the service are not sacrificed, nor does it give rise to distortions in the recruitment programme or to other cadre management problems. As regards the size of the deputation reserve, it may be fixed in the light of past experience and the estimated minimum number of officers likely to be away on deputation during the next three years. Once the size of deputation reserve is fixed, a conscious effort should be made to see that there is neither over-utilisation nor under-utilisation so as to avoid problems in the smooth management of the cadre.

Encadrement of ex-cadre posts

17. Often departments create for various reasons, a number of posts having more or less similar functional duties and responsibilities as the cadre posts. Such posts are manned by both cadre officers and those outside the cadre (s). It should be the constant endeavour of cadre authorities to periodically review the position regarding such posts with a view to encadre them keeping in view:-

   a. the nature of functions and responsibilities attached to them;
   b. the likelihood of their continuing; and
   c. the desirability of deploying cadre officers to such posts.
Recruitment Planning

18. Rate of recruitment to a cadre is essentially a function of the maintenance and growth needs of the Service. A third important factor that determines recruitment size is the quantum of `gaps', i.e. the number of vacancies remaining unfilled for a period of one year or more. It would be convenient to discuss recruitment plan under the three main heads representing the three basic components, viz. (i) maintenance needs (ii) growth needs and (iii) gaps. While drawing up the recruitment plan, promotion prospects will also have to kept in view.

Estimation of maintenance needs

19. Maintenance needs arise out of wastage-both normal (due to retirements on superannuation) and abnormal (due to resignations) deaths, dismissals, etc.), Data on the future wastage pattern for say 5 years should be compiled both in respect of direct recruits and promotee officers. In particular some Group `B' officers likely to be promoted to the Service during the next three years may be retiring within the period of review. To smooth out violent annual fluctuations, if any, an average of the next 5 years should be taken to represent the maintenance requirements of the Service/cadre on account of normal retirement. As regards abnormal wastage to resignation, dismissals, deaths, etc., this may be estimated on the basis of actual experience during the past five years.

Estimation of growth needs

20. Each cadre controlling authority should have a reasonable estimate of the future growth rate of personnel say, over the next 5 years. The actual retirements for the next three years (i.e. the period of the triennial review) will have to be worked out as possible. In general, the growth needs of a service will have to be assessed under the following components:-

a. Normal growth of work in the current functional fields;
b. New functions/schemes likely to be undertaken
c. Policy-induced changes relating to:-
   i. Organisation/Structure;
   ii. Personnel Policy; and
   iii. Administrative/procedural reforms.

21. Rate of increase in work load within the existing functions of the service may be studied with reference to past trends and projected progress of on-going schemes/programmes during the next three to five years. Normal growth in work should not generally lead to any significant increase in number of posts unless it can be demonstrated on the basis of quantitative norms that increase in work has a direct bearing on staff strength.
22. Along with progress of on-going schemes, some of which may taper off during the next few years and thereby reduce the requirement of staff on them, a careful study should be made of new programmes/projects and activities likely to be taken up during the next years. Necessary correlation between financial and physical targets and staff requirements should be established.

23. Policy changes in the personnel field also have an impact on future growth of personnel. Some policy decisions may have been taken or likely to be taken which will have an important bearing on the functions, organisation and structure of the Department/Service. Likely impact of all such changes on the cadre strength should be carefully assessed.

24. A note of caution may be sounded here. The projection of future requirements is not necessarily an extrapolation of past trends for the simple reason that the past conditions might not hold good in the future. Policy changes recently introduced or likely to be introduced often influence the future behaviour pattern of the trend which may not be amenable to quantification. Nevertheless, backed by enlightened judgement and past experience, the cadre authority should still be in a position to assess the growth rate within a reasonable narrow margin or error.

**Under Recruitment resulting `gap`**

25. A `gap` may be defined as the size of regular vacancies in the cadre persisting continuously for more than a recruitment year, even though such vacancies might have been filled by ad-hoc appointments. Regular vacancies are long-term vacancies which are required to be filled on a regular basis in accordance with the Recruitment Rules. The main causes of the gaps which usually accumulate in the lowest rung of the service are:-

a. a) Non-availability of suitable candidates;

b. b) Deliberate under-recruitment so as to avoid promotion blocks at a later stage or for other reasons; and

c. c) Defects in recruitment planning, such as failure to make proper allowance for abnormal wastage, delays etc.

A careful examination of the causes should be made so as to arrive at a reasonable figure by which the gap should be reduced and recruitment increased over the next three years.

**Adverse effects of over or under recruitment.**

26. Under recruitment and ad-hoc appointments should be avoided as far as possible, as these will create distortions in the cadre. In any case, it should be ensured that ad-hoc appointments do not persist for more than a year at the most. Where ad-hoc appointments are sizeable and have been continuing for long periods creating problems for the Cadre Authority and adversely affecting the morale of officers concerned, bold measures may have to be thought of, say in the directions of a radical restructuring of the cadre, a reassessment of promotion quotas and review of recruitment rules.
Over recruitment is as harmful, if not more, as under recruitment. The former leads to future blockades in promotions. The scope of undoing the damages done by past over-recruitment is very limited. The first objective of recruitment planning should, therefore, be to ensure that recruitment is made regularly every year and the rate of annual intake by direct recruitment and promotion from Group ‘B’ is kept within a fixed optimum rate.

A study carried out by the Cadre Review Division has indicated that the optimum rate of annual intake should be 3% of the authorised cadre strength.

If a cadre is suffering from gross under recruitments in the past, the aforesaid optimum rate may fall short of the number required to fill the big gap in the cadre. A special method should be adopted on a one-time basis to ensure that gap is filled without creating future blockades in promotion. An appropriate method would be to hold a limited departmental competitive examination of the eligible Group ‘B’ officers for filling the gap by promotion.

Promotion Trends

27. Promotion prospects are a vital factor affecting the morale and efficiency of the service personnel and hence the effectiveness of the cadre in discharging the role assigned to it. This aspect will, therefore, have to be kept in view while formulating proposals for restructuring a cadre. The Cadre Authority will do well, therefore, to keep under constant observation the trends of promotion/stagnation in the cadre. Constant updating of grade-wise seniority lists helps in correctly assessing promotion trends and prospects. Such updating may be carried out at least once in year i.e. as on first of each calendar year. An assessment may be made of the anticipated promotion prospects (as a result of cadre review) vis-a-vis existing (past) promotion trends. A realistic estimate of likely vacancies in each grade for the next three years, drawing up a programme of DPC meetings at regular intervals and strict adherence to planned recruitment programme will reduce the chances of occurrence of artificial bottlenecks and infuse in the minds of the Service personnel a sense of confidence in their future.

Recruitment Plan

28. The sum total of maintenance needs and growth needs (including increase in reserve needs) will indicate that total recruitment size for the next three years. To this should be added a part of the gap which is proposed to be made good during the period of review. If one third of the total thus arrived at exceeds 3% of the authorised cadre strength, annual intake should be restricted to 3% only.
‘Creation of posts not envisaged by the Cadre Review Committee’

29. Normally additions to a cadre by way of increasing the number of posts at different levels should be considered only in the course of a triennial cadre review. Mid-review changes should be avoided as far as possible. Regular cadre reviews carried out at triennial intervals must envisage such eventualities while making advance projections for the three year period of additional man-power requirements. Accordingly the need for creating post not envisaged by the Cadre Review Committee before the next cadre is due, can be expected to be rare. In the event, however, of such an eventuality it may be ensured that the additional posts so created conform to the cadre structure most recently approved by Cadre Review Committee. There can, however be no rigidity in this regard. In any case the cadre authority should consult P.P. Division of the D.P. & A.R. in this regard.

Review By S.I.U.

30. As per the current practice followed by Ministries/Departments no cadre review is initiated in respect of any Service/Cadre which is likely to be effected by the recommendations of a current SIU study of an organisation under a Ministry/Department. The review proposals are required to be drawn up only after the SIU report has been acted upon by the Department concerned. In case, however, SIU happens to undertake a review of an organisation under a Ministry/Department soon after a cadre or cadres controlled by it have been restructured on the recommendations of the Cadre Review Committee, the Department may ensure that SIU finalises its report in consultation with C.R. Division of Department of Personnel & Training in so far as its recommendations may affect the cadre structure/strength of the concerned service(s).

Reference to Ministry of Finance

31. In so far as the cadre review proposals involve only structural changes in the cadre there is no need for prior clearance by the Ministry of Finance. Where, however, cadre review proposals involve introduction of new pay scales and/or changes/adjustment in the pay scales by way of say merger, bifurcation etc., it is desirable to obtain the clearance of the Department of Expenditure before incorporating such changes/adjustments in the cadre review proposals being formulated by the concerned cadre authority.

Presentation of Cadre Review Proposals

32. While considerable latitude will be available to the cadre authorities in preparing and presenting cadre review proposals, it must be ensured that the necessary statistical data are compiled and updated on a continuing basis in the Format given in Appendix. It is also necessary while presenting review proposals to give a sketch of the historical background of the Service, its objectives and the functional and organisational structure of the Cadre/Service, special features peculiar to the Service and difficulties and problems faced during the process of cadre management. Present as well as the proposed organisational structure of the Department and the service showing posts at different levels with their designations, pay scales and the functional inter-relationship among them along with organisational chart should be enclosed with the cadre review
proposals. The posts to be upgraded should be identified and the justifications for upgradation should be mentioned. Recruitment Rules, as amended till to date, both respect of Service posts as well as its feeder posts, grade-wise seniority lists updated as on first of the `Current Year' (i.e. Year in which the proposals are being framed) should invariably be attached with the proposal papers. Financial implications of the cadre review proposals should also be indicated. In the Format the reference year may be taken as beginning from first January of the current year. For convenience, however, in the Format attached to these Guidelines, `current year' has been taken as 1992. The other years (preceding/succeeding 1992) mentioned in different forms will correspondingly change according to the `current year'.

N0.5/1/71-PP(Vol.VI)

DEPARTMENT OF PERSONNEL

(P.P. WING)

(Now Cadre Review Division)

Dated the 6th May, 1972

OFFICE MEMORANDUM

SUBJECT:- Guidelines for proper Grade Management Setting up of Cadre Management Committees - Implementation of Administrative Reforms Commission's Recommendation No.10.

1. The Administrative Reforms Commission, which examined the existing machinery for the management of different All India and Central Service Cadres, had in their Report on Personnel Administration made the following recommendations :-

Recommendation No.10

a. For all Services advance projections should be made of the requirements of personnel for five years at a time. Mid-term appraisal also should be made if circumstances warrant it and necessary correctives made on the basis of the appraisal.

b. Such projections should be made by cadre management committee which should be constituted in the manner described in para 5.

2. The Commission had further suggested that the cadre management committee may include, in addition to the cadre controlling authority, representatives of the Central Personnel Agency and of the user interests, if any. (User interests, in this context mean the organisations other than the controlling authority which are likely to make a substantial use of the Services of the concerned personnel on deputation). The Government of India have accepted this recommendation of the A.R.C. with the modification that the review should be made, instead of every five years as recommended by the Administrative Reforms Commission after every three years and it would not be necessary to associate the user interests with the review Committee but their
requirements should be taken into consideration while making the review. The composition of the committee should as follows:-

i) Cabinet Secretary  --  Chairman

ii) Secretary of the Ministry Controlling the cadre -- Member

iii) Secretary, Department -- Member

iv) Secretary, Ministry -- Member of Finance, Department of Expenditure

The Ministries/Departments are accordingly requested to take immediate action on the lines indicated above to constitute cadre management committees for review of the cadre under their administrative control, under intimation to this Department.

3. In this connection, a reference is invited to this Department's O.M. No.5/1/71-PP(VI), dated the 1st February, 1971 regarding evolution of principles for proper cadre management. It was mentioned therein that both the Study Teams of the ARC on Personnel Administration as also the Administrative Reforms Commission itself pointed out a number of deficiencies in the management of the various cadres. The Ministries/Departments were also requested in the above O.M. to send details of the various measures taken by them to ensure scientific management of the various Service-cadres under their control. In the light of the information received, this Department has formulated certain broad guidelines (copy enclosed) for objective cadre management. It is expected that those general guidelines, if followed systematically, would remedy to a considerable extent, the deficiencies pointed out by the ARC and ensure a balanced and scientific management of cadres, apart from helping in establishing uniformity in the principles/procedures employed in the management of the Service Cadres.

4. All the Ministries/Departments are requested to review immediately the cadres controlled by them in the light of the enclosed guidelines and prepare a detailed personnel plan for each cadre, taking 1972 as the base year.

5. As this Department is required to furnish the implementation report of the ARC's recommendation to the Parliament it is requested that as soon as the implementation of the Government decision in this regard is completed, a report may kindly be sent to this Department.
DEPARTMENT OF PERSONNEL
GUIDELINES FOR CADRE MANAGEMENT

GENERAL

1. The basic purpose of cadre management is to ensure that, consistent with the maintenance of morale, the cadre is recruited, trained and utilised in a manner calculated to fulfil the objectives for which the cadre was constituted.

THE STRUCTURAL ASPECTS OF A CADRE

2. The fixation of strength of a cadre should be related primarily to the current and anticipated requirements of personnel for discharging the functions for which a cadre has been created.

3. In fixing the strength of the cadre due regard should be paid to the duties and responsibilities of the posts to be included in the cadre. Every cadre should, therefore, have a schedule of duty posts identified, on the basis of detailed job evaluation, either individually or in groups, which constitute the core of the cadre.

4. The strength of each cadre should essentially reflect the permanent requirement for cadre personnel.

5. The following three reserves should be built into the structure of every cadre:
   i. Deputation Reserves: Since the deputation reserve is a mechanism for sending Cadre officers to hold ex-cadre posts, this reserve should be fixed by assessing the needs of the outside (or ex-cadre) agencies for the services of officers of particular Cadres, having regard to the experiences and expertise developed in such Cadres. Such deputation reserve should also bear a reasonable proportion to the duty posts in the cadre in order to ensure that cadre personnel are primarily available for filling up cadre posts.
   ii. Training Reserve: This reserve should be rationally fixed with due regard to the particular needs of the cadre for the development of suitable professional expertise and generation of adequate specialisms through the training (both post-entry and in-service) of cadre personnel.
   iii. Leave Reserve: This reserve should be related to its actual utilisation.

6. Where recruitment rules provide for multiple points of entry into the service, the promotion quotas should be so determined as to ensure adequate opportunities for promotion between the various grades in the cadre schedule.
THE PERSONNEL ASPECTS OF A CADRE

7. A rational recruitment policy should be framed so as to take into account:
   • Maintenance needs of the cadre.
   • Growth needs of the cadre.
   • Quality of recruits.
   • Promotional prospects of recruits.

8. The rate of annual recruitment should be worked out that gaps in the cadre are adequately taken care of in a phased manner and there is no excessive recruitment in particular years leading to dilution in the quality of recruits or block in promotion at a later stage.

9. Except to the extent provided for in particular recruitment rules for any cadre, cadre posts should be held by cadre officers.

10. A scientific plan for the development and deployment of officers in a cadre should be devised. This plan should spell out in detail the requirement in terms of skills/specialities, desirable experience etc. for different positions, and the various training programmes required for the attainment of this objective.

11. The placement of officers, in and outside the cadre, should be in line with the skills/experience acquired by them. It should, therefore, be done after a careful screening of eligible personnel in relation to the type of posts to be filled up.

12. Deputation of ex-cadre posts should be for a fixed tenure, and unless there are exceptional grounds, an officer sent on deputation should return to this parent cadre on the expiry of his tenure.

MACHINERY AND PROCEDURES FOR BETTER CADRE MANAGEMENT

13. There should be a high-level comprehensive review, at regular intervals of three years, of the management of each cadre in the light of these guidelines.

14. The specific object of the triennial review should be to:
   • Determine the rate of growth of the cadre, after analysing past trends and anticipating additional needs;
   • assess the trend of growth of the ex-cadre posts requiring the services of cadre officers and adopt measures to cut imbalances arising between deputation reserves and the number of officers in ex-cadre posts;
   • fix and rationalise the strength of the cadre;
   • draw up a personnel plan, for three years indicating for each year;
   • the size of the cadre;
• fresh intake of personnel;
• utilisation of deputation and other reserves;
• overall needs and gaps.

15. A Review Committee should conduct the triennial reviews in respect of all cadres. The composition and functioning of the Review Committee will be as indicated in the forwarding O.M. No. 5/1/71-PP(Vol.VI) dated 6th May, 1972.

16. A departmental committee consisting of the head of the department and a few senior officers should undertake a mid-term appraisal of the structural and personnel aspects of the cadre once every year in order to check and apply suitable correctives as may be necessary due to changes in projected needs and gaps.

17. The departmental committee referred to in (16) above will also perform the following functions in relation to the cadre management:
   a. Screening of officers for their suitability for promotion for categories of posts for which departmental promotion committees are not regularly constituted.
   b. Nomination and recommendation of officers for various courses of training in India and abroad.
   c. Nomination and recommendation of officers for foreign assignments.
   d. Such other personnel matters which the Department may like these Committees to consider.