

SUMMARY FOR PRIME MINISTER OF PAKISTAN

Subject: **SERVICE STRUCTURE FOR THE ENGINEERS.**

Pakistan Engineering Council, is a coveted body of professional engineers established, under act of parliament 1976 to regulate engineering profession in the country. It presently represents over 200,000 registered / professional engineers of the country.

2. In all diversified field of development may it be defence production Nuclear Technology, Water and Power, Railways, Roads, Communication CPEC, Chemical & Petro-chemical industry etc. nation highly owes to the skills of engineers, the cream of the nation. They are the catalyst of socio-economic advancement as well as defence of the country. It is because of the reasons, Engineers all over the world are considered to be highly valued professionals. Engineers, serve the humanity and mankind and contribute towards the development of the country and the nation.

3. In Pakistan the engineers however, are neglected community and apathy of advent of system. They, toil day and night, for the development and advancement of the country but languish in their initial position for decades. The engineers of Federal and Provincial departments, do not possess any service structure nor they are given automatic time scale promotions, a grave in justice indeed, persisting for decades, by now. It is important that those who perform day and night and contribute towards well being of the mankind, betterment and development of the country should not be ignored.

4. In federal structure there is well defined system of filing the positions of various service cadres. Under the civil services cadre there is one examination and the applicants upon reaching the desired grades are assigned to the various services of the Federal Government in keeping with specific laid down criteria. In case of engineering profession, however there is no service cadre, similar to the civil services, thus this need for immediate introduction of engineering cadre at Federal and Provincial level, with an opportunity for the engineers, the cream of

the nation, to move latterly in various organizations to benefit the nation of their diversified experiences and talents.

5. In early **70's** some administrative reforms were introduced for the betterment of the engineers, but later disarrayed. These need to be considered and revived for betterment of the engineering services of Pakistan. The services structure of engineers in line with civil services, those of doctors and other services need to be linked to the automatic time scale promotion i.e. 05-years from BS-17 to BS-18 07-years from BS-18 to BS-19, 05-yeras from BS-19 to BS-20 and 05-years from BS-20 to BS-21, 03 years from BS-21 to BS-22 and the professional engineers should only be appointed from BS-17 to BS-22 in all engineering departments / organizations. Further promotion in BS 21 & 22nd should be linked to specialised professional training and higher qualifications.

6. The engineers working with government departments stagnate in the original grades in which they were inducted, for long periods of time, primarily due to unrealistic Service Rules and closed cadres. The engineers, in most of the engineering organizations, get recruited in BPS-17, stagnate for 15 to 20 years in the same grade and hardly get promoted to BPS-18, as Senior Engineers and thus a vast majority of them retire in BPS-18. It is most unfortunate that these professionals are ignored, while the officers of other services climb their way from BPS-17 to BPS-22 quickly within very few years, in each scale along with much better facilities, honour and privileges.

7. A reference is made to the Administrative Reforms Order of 1973 whose main features, were:

- (a) All the services and cadres will be merged into a unified grade structure with equality of opportunity for all who enter the service at any stage based on the required professional and specialized competence necessary for each job.
- (b) The unified structure will enable promotions to the higher posts throughout the range of public service for horizontal movements from one cadre to another including the movement of technical personnel to the cadre of general management. There will also be scope for out of turn promotion to exceptionally able officers.

(c) The correct grading of each post will be determined by job evaluation.

8. The engineering community has silently been raising their voice, from time to time, as law abiding citizens. In past several decades a number of commissions were constituted by various governments, who had recommended for professionalization of services, but never implemented.

9. The earlier reforms had compensated professionals, including engineers, to some extent by granting special and uniform scale of pay to all professional services. At one time, six to seven engineers were elevated as technocrats to the position of Federal Secretaries and almost all Provincial Secretaries of engineering departments were engineers, resulting into remarkable achievements of infrastructure and prosperity within the country. However, this has changed with time and presently seldom any such position is held by an engineer.

Recruitment and Promotion Structure of Engineers

10. In view of above circumstances and to inculcate confidence of engineers in government and public service, and to provide them a respectable role in the national agenda of development and prosperity, a proper service structure for professional needs to be approved and notified by the Government of Pakistan and the provinces besides all other public sector entities.

11. Besides the requirement of a proper service structure, a time scale promotion structure as under, is proposed.

Scale	Mode of Employment	Length of Service Minimum	Professional Development / Trainings
BS-17	Direct induction	-	Registered Graduate Engineer
BS-17 to BS-18	By promotion	5 years in BS-17	Registered/Professional Graduate Engineer plus prescribed training
BS-18 to BS-19	By promotion	7 years in BS-18	Professional Graduate Engineer plus prescribed training
BS-19 to BS-20	By promotion	5 years in BS-19	Professional Graduate Engineer plus prescribed training
BS-20 to BS-21	By promotion	5 years in BS-20	Professional Graduate Engineer plus prescribed training
BS-21 to BS-22	By promotion	3 years in BS-21	Professional Graduate Engineer and performance assessment

12. There are more than 500 Cadre posts in BPS-20 in the various engineering departments / organization. The Government during the year 1989 constituted a committee to recommend a service group of engineers like other services groups. The Committee had recommended to carry out job evaluation for jobs in BPS-20 and above and appointments of relevantly qualified and experienced professionals in line with job analysis, federal ministries involving engineering works to be declared as engineering ministries and engineers having suitable experience and qualifications were proposed to be posted as Secretaries, Additional Secretaries and Joint Secretaries in such ministries. The Committee had further recommended to create an occupational group of engineers, Central Engineering Services and Engineering Academies and foreign training in different developing fields.

13. The recommendations of this committee however, were never implemented and totally set aside. It is therefore imperative that an engineering Services of Pakistan be constituted which will ensure proper promotion of engineers to higher positions. It may be relevant to point out that in pre-partition days a similar service namely, "**Indian Service of Engineers (ISE)**" existed. Similarly in Pakistan upto early **70's** there existed **PSE (Pakistan Service of Engineers)** but later disarrayed due to unknown reasons. This will pave the way to induct the much needed professionals / technocrats for the higher echelons of the Federal Government and the same can then be adopted by the provincial departments and various autonomous and semi-autonomous entities in the public sector.

14. In order to ensure appropriate promotion opportunities, the suggested pyramid of engineering service in an engineering entity may have the following strength of certified professionals:

BPS-17	60% of the total sanctioned strength of graduate engineers in the organization.
BPS-18	22% of the total sanctioned strength of graduate engineers in the organization.
BPS-19	10% of the total sanctioned strength of graduate engineers in the organization.

BPS-20	5% of the total sanctioned strength of graduate engineers in the organization.
BPS-21	2% of the total sanctioned strength of graduate engineers in the organization.
BPS-22	1% of the total sanctioned strength of graduate engineers in the organization.

15. So as to broaden the availability and expertise it is imperative that the Pool of BPS-20 position in all Federal Government departments, inclusive of such professionals from the Autonomous/Semi-autonomous and other government entities- such are source at the provincial level too, can be tapped, to form the basis for promotions to BPS-21 and above.

Appointment of Engineers on Technical Positions

16. Engineers are responsible for execution of development plans, provision and maintenance of essential services and contribute towards productivity, economic well-being and defence of the country. The performance of organizations like Atomic Energy Commission of Pakistan, Defence Production is a clear manifestation of the fact that engineers and scientists can perform wonders provided they are given proper working conditions and role in decision making. The success achieved by countries like China, Japan, where above 70% of the senators etc. are hard core engineering professionals, should act as an example to emulate.

17. The following ministries / divisions are solely technical in nature and thus need be manned and managed by engineers / technocrats with relevant expertise in relevant field.

i.	Ministry of Water & Power	vii.	Ministry of Railways
ii.	Ministry of Petroleum & Natural Resources	viii.	Ministry of Science & Technology
iii.	Ministry of communications	ix.	Ministry of Housing & Works
iv.	Ministry of Production.	x.	Aviation Division
v.	Defense Production Division	xi.	Planning & Development Division
vi.	Ministry of Industries	Xii	Any other professional engineering body performing professional engineering work

18. Similarly, in accordance with the responsibilities assigned to various public sector corporations and autonomous organizations, besides appointment of

the Chairman, Managing Directors, Chief Executive Officers (CEOs), Chief Operating Officers (COOs), and members of the Board of Directors should be from amongst the professional engineers. Ministries / Divisions, like Aviation, Defence etc can be headed by the engineers of defence / aviation departments.

Incentive For Higher Technical Qualifications

19. Engineering and Technology play an important role in the development of national economy. Therefore a premium is due for higher technical qualifications. To give impetus to this resolve, besides existing financial incentives in vogue, certain additional incentives must be allowed for professional engineers having higher technical qualifications. The provision of such incentives be embodied in respective Service Rules.

Trainee Engineers

20. During the year 1973-74 the government had created a "National Development Volunteer Programme (NDVP)" wherein professionals and qualified persons were given training and paid un-employment allowance. Government had also allowed employment of 15% of the strength of employed engineers as trainee engineers. Under this programme over 4000 engineers were employed, who were also provided on job training in different departments and organizations. A large number of them, later were absorbed in the respective departments / organizations and rest were usefully trained to undertake their own business / work or to meet with the need of the international organizations.

21. After graduations when the successful graduate engineer goes to the market, in search of job, every employer expects from the prospective candidate to have some past experience. The government need to revive the scheme of training of engineers and make mandatory provision for, 15% of the existing cadre strength, to be taken as trainee engineers. This would not only resolve to some extent, the present unemployment issue, but the trained engineers would also be available as leave reserves and for subsequent absorption in the same departments / organization.

Foreign Training / Scholarship

22. For transfer of technology, oftenly foreign countries offer a number of scholarships for advanced training of engineers, to the Government of Pakistan. These scholarships should be properly advertised for attracting engineering professionals, to apply. Unfortunately most of these training facilities are availed by non-engineers and unconsidered persons with no much of return to the State.

Internship / on Job Training

23. To compete in the world market, improvement in the quality of products is much needed. To enhance the productivity and quality assurance, industrial sector of the country needs to be regulated properly in the engineering aspects. For it Pakistan Engineering Council is fully prepared and competent to play its proactive role so as to ensure improvement in quality and cut the production cost. It should be mandatory for every industry to provide internship / on job training opportunities to young / fresh engineers. It will not only ease the job opportunities to some extent for fresh engineers but also result in improvement of quality and cut in production cost under the supervision of qualified personal. Local industries should be bound, to provide internship opportunities to the graduate engineers equivalent at least to 30% of the employed strength of the engineers with adequate remuneration. Rs 20,000/PM to regulate the engineering aspects in the industrial sector, Pakistan Engineering Council, be allowed to play its proactive role, for which a formal proposal is being submitted separately.

Salary Structure

24. Salary of the engineers in private sector should be well defined and after completing internship / training engineer should be offered min. salary of Rs. 70,000/- per month. Engineers holding master or doctorate degree should be given extra incentive in basic pay package.

Hardship Allowance

25. The engineers due to their hard labour turn desserts into dwellings. Mostly, the roads and dams and such like other mega projects are executed in far, flung areas, with potential risk to health and life. Organization like Army, Health Department pay hard area allowances. The doctors even get hardship allowance for working in underdeveloped areas / districts, whereas the engineers, who work

in the total deserts are paid nothing beyond their normal salary. They deserve hardship allowance to work diligently in the remote areas. Also Health / Life Insurance needs to be considered for the engineers who are always prone to risk, while working in the field due to unfavourable conditions. A minimum allowance of Rs. 10,000/- per month is recommended for working on projects in hard areas. A proper notification about declaration of "hard areas" should also be made for the purpose.

Brain Drain of Engineers

26. Around 25,000 qualified engineers are being produced across the country yearly. Due to lack of job opportunities about 15% of such qualified engineers either remain jobless or not adjusted in appropriate field, of their specialization thus compelled to accept odd jobs resulting in the waste of their talent and money invested by the nation on their education / training. The number of such unemployed engineers is increasing every year. It is causing unrest amongst the highly qualified technocrats. In this age of science and technology a lot of opportunities do exist in the private sector, for entrepreneurship but due to lack of financial resources, engineers of middle class, hardly choose to get involved in their own business thus waste their talents. To enable them to start their own business, qualified engineers need to be facilitated by offering interest free loan in line with the opportunities available to educationalists and doctors where such experiences are quite successful. It will result in increase of job opportunities in the private sector. To begin with, interest free loan of Rs. 1.00 Million against the deposit of original degree, should be considered for the graduate engineers to start their own entrepreneurship without any collateral and Rs. 5.00 Million and above, with collateral.

Management Skills

27. Due to lack of opportunities, engineers seldom acquire management skills, an essential requirement for posting as head of organization. As such to provide an appropriate opportunity, like other services officers, engineers should also be nominated in good number for various advance course in institutions like National School of Public Policy, NIPA and Civil Services Academy. They should also

be provided opportunities to participate in management courses conducted by various institutions of repute like LUMS, LSE, IBA etc at departmental expense.

Job Opportunities for Un-employed Engineers

28. According to present available statistics the number of professional engineers registered with Pakistan Engineering Council is over 200,000 of which about 30% work in public, remaining 70% in private sector. The present strength of unemployed graduate engineers across the country who are either unemployed or doing odd jobs out of their field is estimated to be around 50,000. In early **70's** government had formulated a policy to grant 5-years leave to the engineers working in public sector and had allowed them to work in private sector or abroad while keeping their lien in their parent departments. It substantially reduced unemployment of engineers. This policy needs reconsideration and revival for creation of job opportunities for engineers. In this way not only they will gain in sight of modern technology while working abroad but will also help transfer of technology on their return. Hundred of sanctioned post of engineers presently are lying vacant in the various central and provincial departments. In certain organizations there, exist ban on recruitments which has further aggravated the unemployment positions of engineers having dual impact, firstly increase in the number of unemployed engineers and secondly lack in quality assurance, therefore immediate lifting of ban on recruitments especially, qualified engineers is required to ease out the situation.

Hon'able Prime Minister Sir,

29. The engineering fraternity whole heartedly support the development policy of the Government and wants to play an active role in the economic development of the country.

30. Pakistan Engineering Council, on behalf of engineering fraternity of Pakistan seek your kind indulgence to get restored the due status of engineers, and resolve their grievances persisting since decades due to apathy of advent of system. So that the Engineers, could play their effective role in the economic well being of the country diligently, effectively and efficiently.

31. You are also requested to kindly spare some of your precious time for the audience of the delegation of engineers fraternity to assure you of their full support for the economic development and well being of the country.

32. Submitted for your kind sympathetic considerations and immediate orders for the redressal of the genuine grievances of the engineers of the country to enable them to serve the nation.

**ENGR. JAWED SALEEM QURESHI
CHAIRMAN
PAKISTAN ENGINEERING COUNCIL**