



Institution of Engineers of Kenya

Memorandum

To

Presidential Candidates

1. Engineering in Kenya

The modern world has been an engineering project. The structures, machines, processes, and organization, which have led to increased affluence, life expectancy, comfort and enlightenment are all due to engineering efforts.

Kenya's Vision 2030 aims to transform the country into a newly industrialized, middle-income economy, providing a high quality of life to all her citizens by the year 2030. This vision is largely an engineering one.

The country has faced many problems in the last decade which urgently need intervention. These problems include unemployment, underemployment, prohibitive cost of infrastructure, high energy costs, lethargic implementation of water supply projects and corruption. Engineering in Kenya is uniquely qualified to help midwife address these myriad challenges to help deliver lasting solutions.

1.1 The Institution of Engineers of Kenya

The Institution of Engineers of Kenya (IEK) is the learned society of the engineering profession and co-operates with national and other international institutions in developing and applying engineering to the benefit of humanity.

The Institution was first established as the East African Association of Engineers on 19th January 1945 in the boardroom of the Chamber of Commerce, Portal Street, Nairobi.

It was established to promote the general advancement of the science and practice of Engineering and to facilitate the exchange of information and ideas on those subjects amongst members. This served the East African countries until November 1972 when at a meeting in Nairobi, it was agreed that the functions of the Division serving Kenya be transferred to a new body, the Institution of Engineers of Kenya as it is today.



2. The focus for the next government

The national focus must now shift to the productive sectors. These include Agriculture, Manufacturing, Mining, Assembly. Sufficient national budget should be allocated to these productive sectors that create jobs and not just the service sector that largely should serve a robust productive sector. In the history of the nations that have developed rapidly there was a meaningful and aggressive investment in productive sectors. This is perfectly in line with vision 2030.

3. Challenges Facing the Engineering Profession in Kenya

a. Engineering Education, Training and Licensing

- i. Kenya should expeditiously educate and train enough engineers so that we attain the requisite international ratio of engineers per capita. There is need to fund university engineering faculties so that they can effectively produce enough graduates. Also important is the provision of mandatory 2 -year paid internship for all Engineering students/graduates under the various public and private projects being undertaken to equip them with skills relevant to the job market.
- ii. There is need to harmonize the Engineers Act and Universities Act to ensure that the challenges facing the accreditation of engineering programs are removed, Students graduating from engineering schools should be registrable with EBK as they start their professional journey. This will also ensure that EBK is able to assure the rest of the world that programs being carried out under their watch meet international standards and fast track Kenya's journey towards joining the International Engineering Alliance.
- iii. It is urgent that there is harmonization of the Engineers Act and the Kenya Engineering Technicians and Technologists Act so that there is no conflict and misunderstanding in the society.

b. Job opportunities for engineers in the national, county governments and the private sector

- i. The number of Engineers in the National Government should be optimized so that development work, such as planning, design, and construction supervision, may be undertaken efficiently. There is almost a complete lack of Engineers in county governments. The County Governments require approximately 1500 additional



Engineers to be engaged to address the deficit that stands at 1500. This has led to shoddy and dangerous infrastructure development in counties including collapsed buildings and bridges. It is urgent that the Government hires trained, experienced, registered and licensed Engineers to be in-charge of all Engineering works in Counties and National Government.

- ii. Where short term assignments or contracts do not economically justify employment, qualified Kenyan Engineers and Engineering firms should be engaged to oversee Engineering projects and works at all levels of Government
- iii. The 40% local content requirement should be fully implemented. The minimum contract sum that cannot be issued to foreign firms should be reviewed upwards to KES 2 billion. The government should put up a policy to build local capacity for local firms to be able to deliver jobs up to KES 2 billion. This should include establishing an infrastructure bank to finance local firms to do projects successfully
- iv. All construction projects should be registered with NCA including their nature and cost. All development should be declared to KRA by electronic means. All development at the approval stage at the Counties should be registered with KRA. The registered projects should include the PIN and other details of the developers, contractors and the consultants involved as well as their compliance with statutory regulators.

c. Remuneration for engineers;

We call upon the National, County Governments to look into remuneration for Engineers. The current remuneration is not sustainable

- i. Proper remuneration will lead to attraction, recruitment and retention of competent engineering personnel in the National and County governments. The Salary and entry level of engineers need to be improved from Job Group K to L. This will enhance the recruitment and retention of Engineers in the Public Sector. Engineers should be paid non-practice allowance so that National and County governments, parastatals, departments and all semi-autonomous government agencies may attract and retain qualified engineers.
- d. Lack of meaningful participation (conceptualization, prefeasibility study, Feasibility, design) of Kenyan engineers in large infrastructure projects such as SGR, multipurpose dams, and Nairobi Expressway, unlike in Ethiopia and Tanzania where local engineers play prominent roles. This should be addressed urgently. Kenyan Engineers solve complex problems globally and it is not sitting well where they do not have an opportunity to conceptualize, design and implement signature projects in their own country



- e. Engineers Scale of fees to be fully implemented and be the point of reference for compensation of Engineers in Public and Private sector. Competition for consultancy jobs should be limited to technical proposal and the Engineers Scale of fees solely applicable for compensation.
- f. Enhancing local manufacturing by ensuring that foreign contractors implementing public infrastructure projects buy and use Kenyan products. In addition, we encourage the government to reduce the cost of production in the country as this will go a long way in ensuring that we boost local manufacturing. It is important to note that this sector employs engineers.
- g. The Government should hasten the completion of the Nuclear Energy construction and production as well as full exploitation of Geothermal, Solar and Wind potential which would provide reliable, stable, cost effective, and clean source of energy for faster industrial growth.

4. Engineering Research and Development

Enhanced Financial support towards engineering innovation and research especially with the objective of decarbonizing the country to achieve net zero by 2050. Promotion of Research, Development and innovation with Engineers support taking innovation and innovation practices to “Wanjiku” to enhance job creation and creation of business opportunities.

5. Industrialization

As the government continues to implement infrastructure development program, there is need for leveraging and making it pay by promoting enhancement of manufacturing and industrial Sectors. Under this, there should be strong county value addition throughout all the counties. Engineers will greatly support this initiative. The goal should be to make each county a center of industrial development on a particular unique and distinct product that can be produced for local and export market. There should be a roll out of last mile infrastructure in all counties to spur total industrialization. This should include roads, water and sanitation, power, telecommunication, hospitals and other social amenities.



6. Way Forward

We now propose that you incorporate a small team of Institution of Engineers of Kenya (IEK) members into the transitional and program implementation team in the new government once you are elected into office to Fastrack the realization of these dreams.

7. Commitment

IEK commits to work closely with you to ensure that the next government is led in a way that will advance Engineering in Kenya to ensure sustainable economic growth and development.

Signed

Eng. Erick Ohaga, CE, FIEK
President

INSTITUTION OF ENGINEERS OF KENYA