

FAILING TO SEE THE BIGGER PICTURE – A PROFESSION IN DISTRESS



Engineering failures such as the recent one at the New Klang Valley Expressway (NKVE) brings about various reactions from engineers and members of the public alike. As usual engineers talked about the technical problems involved in the original design of the highway and its slopes and failure to maintain the slope whereas the public looked for those to blame. The mass media tried its best to provide a bit of both.

As always, engineers in their enthusiasm to show their professional skills and offer their professional services to the distraught parties, normally fail to look at the bigger picture. Unfortunately, this is our trademark, perhaps due to our technical training and extremely high factor of safety. We excel in looking at minute details, casting doubts on things, being suspicious of any idea and dwelling on technicalities to an extent that we have never really learned to see things from the broader perspective, think out-of-the-box and become master to our own destiny as a profession. It is little wonder that the institution itself is often jammed up, suffering from system overload due to unending controversies amongst its members.

Deliberations involving other professionals are normally positive, full of innovative ideas and enthusiasm to try new things. On the contrary, discussions amongst engineers are punctuated with criticisms on every little detail of an idea, throwing of cold water on any new proposal and casting of suspicion on any intentions.

For example, on the NKVE rock fall, we should really leave the matter to the parties appointed to undertake a full investigation instead of trying to predict the causes of the failure. As an institution, the IEM should train its members to look at the bigger picture and

ask more pertinent questions such as whether engineers have been given enough opportunity to design the expressway to the standard that we want or have we not been constrained by the allocated budget decided by non-engineers. If the budget is sufficient, then why did the engineer not design it to the requisite standard? Or is it that our knowledge of local geology or climatic conditions insufficient to enable a thorough analysis of the short and long term stability of the slopes?

If the answer to the first question is in the affirmative, this calls for a memorandum to the government for an early involvement of engineers in policy making and planning to enable appropriate budgeting for engineering projects, something which I initiated in my presentation at a recent forum on City Development in Kuala Lumpur. The powers to be should be alerted to the fact that much as the engineer would like to design to a very high standard, the actual financial outlay for an engineering project determines the standard achievable. We can design a low cost road and we can design a first class motorway with viaducts and tunnels instead of cut slopes depending on the financial allocation for the project. Clients must be informed that undue savings upfront on capital costs shall in the long run be lost in future maintenance and repair costs. The IEM could initiate interest in incorporating long term maintenance and repair costs in the initial cost of a project as is being introduced overseas now. If the engineer is at fault or negligent, the Board of Engineers, Malaysia (BEM) must perform its duty as a regulatory body and quickly take the engineer to task to maintain the dignity of our beloved profession. If our knowledge is insufficient, a call for more research and development work should be our answer. ■

Ir. Prof. Abang Abdullah bin Abang Ali
President
The Institution of Engineers, Malaysia (IEM)