

Towards effective implementation of road projects and programmes

INTRODUCTION

There has been much written and spoken regarding the deficiencies in the implementation of infrastructure projects in South Africa, also in the context of this short discussion, road infrastructure. Amongst those who have commented on the inability to implement infrastructure, are the State President and other Cabinet members, the diagnostic report of the National Planning Commission into the provision of infrastructure for development, various World Bank reports, a SAICE report and other professional bodies, and the public at large. In the words of Bobby Godsell on national radio, “We don’t have a money problem, but rather a delivery problem.”

There is much evidence to show that roads are an important catalyst for economic growth, perhaps second only to education, and unless we address this deficiency the much needed economic growth rate which this country needs to address a number of problems in the country will not be attained (DoT 2008).

How then do we go about striving to achieve this? Perhaps the necessary action can be addressed within a “4S” framework:

- Structure
- Systems
- Skills
- Service

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STRUCTURE

The contextual environment for the implementation of road programmes in South Africa is one of three levels of government, all with strong original road powers as set out in our Constitution, a phenomenon which is not common throughout the world, where most governments have only two levels of road authorities possessing strong powers in respect of the provision of roads (Mitchell 2009). It is suggested that the reason for this state of affairs is political compromise in 1910, when the Union of South Africa was formed from four then independent states, and again in 1994, the advent of full democracy in South Africa, when the two major negotiating parties each supported different institutional arrangements, namely a unitary state on the one hand and a federal state on the other. South Africa can best be described as a unitary state with strong federal characteristics. At this negotiating forum in 1994 nine provinces were also created. Added to this we have two levels of local authority government, local and district.

Infrastructure delivery systems, including roads, should adopt a strategic approach, build trust and understanding with the private sector, have an emphasis on outcomes and incorporate value for money through oversight functions. In the roads sector, the subject of this discussion, they need to address in an integrated fashion all the relevant facets, be simple to understand but comprehensive in output, match real road needs, not just political “wish lists”, and have the confidence of the Treasury.

The consequences of this is a multiplicity of road authorities for a relatively small inter-city road network for roads carrying traffic volumes of say 1 000 vehicles a day and above. Added to the nine provincial road authorities is the South African National Roads Agency, SANRAL, previously a Chief Directorate in the National Department of Transport, as well as three private “road concessionaires” – all these bodies present in an environment of a shortage of roads skills in the public sector.

A country’s institutional structure for the provision of roads generally changes over time from complete “in-house” activities to strong private sector involvement in delivering the road programme, with full privatisation of some roads (Mitchell 2009). Nowadays active consideration is being given world-wide to the “commercialisation” of road provision through public-private-partnerships, road agencies and road concessionaires.

In order to examine the most effective institutional structure for the provision of roads in South Africa we need to consider certain administrative organisational principles. These include:

- The need to promote sound governance – which is mainly about leadership and accountability to the public.
- A clear assignment of responsibilities with as few administrative bodies as is technically possible, which should result in a reduction in overall administrative costs.
- A separation of the political and executive functions.
- A minimisation of inter-authority structural conflicts.

The institutional structure thus created needs to be devoted to effective and efficient delivery of a “market-related” total road network and the optimal matching of needs and resources.

With this background a suggested long-term approach to the institutional structure for the management of the roads function in South Africa is suggested as being:

- For the primary road network in the country, probably some 30 000 km in extent – continue with the SANRAL option.
- For the secondary inter-city road network with traffic volumes of say 1 000 vehicles per day (vpd) and higher, probably some 25 000 km in extent – create a new roads agency to implement and maintain the network.
- For all roads carrying traffic volumes of less than about 1 000 vpd, which will be mainly gravel roads – the provincial road authorities should be the controlling bodies.

- The metro authorities should assume responsibility for all roads in their geographic area, with the exception of SANRAL roads. Importantly they should receive adequate funds to shoulder this responsibility.
- For roads in the minor local authorities, a programme to restore the professional capacity and institutional memory should be embarked upon.

There will most definitely be political obstacles in the path of this proposal – note the experience of the *Holmwood Commission Report into the Roads Problem* in 1925, which took ten years to come to fruition with the creation of the first National Road Board (Floor 1985). However, if we are to restore our road network to an acceptable condition to help drive the much needed economic and social development, strong leadership will be essential. Obviously the long-term programme will not be implemented immediately and a short-term incremental programme to work towards this goal will be necessary. This will require perceptive political leaders having the interests of the country at heart.

SYSTEMS

Road management systems are, and world-wide have been, an essential “working tool” of road authorities for 30 or more years. A road management system (RMS) in the context of this short discussion is a system which defines a set of integrated procedures for providing and maintaining an effective road network at minimum cost and maximum efficiency. It seeks to integrate all the facets of road activities necessary to manage road networks, from planning to financing to design and construction, and also monitoring of the network condition and performance for maintenance purposes. It should also improve the interaction between the policy-makers and the executive (Mitchell & Jordaan 1989).

Road programme management systems have been in operation in South Africa in various forms since the late 1970s. Kannemeyer has produced a very interesting chart which illustrates the rise and fall over time of pavement management systems, an element of the total management system, since the late 1970s. This shows that their capacity and use peaked in the mid-1980s and has been in decline since the early 1990s. The same can be said for the other elements of an integrated road management system (Kannemeyer & Mitchell 2010).

There has been much written and said about the consequences of this situation which will, for reasons of space, not be commented on in this short discussion. Suffice to say that a report of the Department of Transport in 2006 states “there are no working road condition management systems for gravel roads” and “for sealed roads more than half of the provincial road authorities stopped (or curbed) doing road network condition assessments after 1997”. At local authority and metro level there are only “pockets of excellence”. However under the guidance of SANRAL and the Treasury, road condition assessment systems are being re-introduced as a pre-condition for provincial authorities to receive ring-fenced maintenance funds for roads – this, however, is only part of the need for effective RMSs. So where do we turn to in order to remedy the situation?

The National Planning Commission’s diagnostic overview report in 2011 suggested that the necessary skills and motivation in the public service to manage infrastructure delivery systems was lacking, and that a short-term approach using

consultants was a “band aid” only, and that without adequate in-house expertise at provincial and local authority level the problem will not be solved. There was therefore a need for an alternative approach towards managing infrastructure delivery systems (NPC 2011).

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A suggested approach to addressing this problem, or rather need, insofar as the roads sector is concerned would be to:

- Re-visit the Road Infrastructure Strategic Framework for South Africa (RISFSA) report recommendations on road pavement management systems.
- Investigate the recommendations of the National Planning Commission report for adaptation to the roads sector.
- Involve the Treasury in the process.

The system would need to be based on realistic planning and an accurate determination of the current network capacity and condition. For this to be done, an updated Road Network Study would be necessary – the last one was carried out 30 or so years ago. Because financing will be a major issue, the public needs to be kept informed and involved in procedures for the acquisition of the necessary funds.

SKILLS

Adapting a public statement by Minister Trevor Manuel, it can be stated that a competent and professional (skilful) civil service displaying wisdom is essential to the implementation of road programmes. It needs to be made clear, however, that skills do not comprise mere knowledge, but that experience is also required. The much needed wisdom can be regarded as knowledge plus experience, and it can take five or more years of sound experience in any field of endeavour to be regarded as an expert in the field.

Skills do exist in the roads milieu in South Africa, but with some notable exceptions these reside mainly in the private sector. However, it is essential for the optimum and efficient implementation of road programmes to have a professional client – many sound reasons can be advanced for this. So how do we go about developing these needed skills and wisdom in the civil service?

In earlier years these skills were developed in the primary government infrastructure provision authorities, such as the then South African Railways and Harbours, the Department of Water Affairs, Provincial Roads Departments, large Municipalities and the suchlike. These were excellent training grounds and most of the eminent engineers in the past received such “training”. Currently most “hard engineering” is carried out in the private sector, with a consequent loss of institutional memory in the public sector. This raises the question, has the “commercialisation” pendulum swung too far?

An essential prerequisite for the rebuilding of capacity in the public sector road bodies is pride in public sector employment. Also there needs to be no cadre deployment to senior posts, thus shutting the door to those competent persons still employed in the civil service. In order to address the skills shortage in the longer term it is suggested that a return to a substantial amount of “in house” engineering takes place. In the shorter term perceptive mentoring of existing personnel who might not have the requisite experience, by experienced roads engineers, should be resorted to. Additionally it would help the process of building competence in public sector bodies if post requirements and remuneration could be structured to encourage persons with the requisite skills and experience to enter the public service without loss of income. In the author’s experience road engineers in the Federal Highway Administration in the USA are largely drawn from private sector companies and are already experienced professional roads engineers when they enter the public service.

There is a “long path to hoe” in this very important endeavour, but it is essential that it succeeds to ensure the long-term sustainability of South Africa’s road network.

SERVICE

Chapter ten of the South African Constitution details the manner of carrying out service to the public: “Public administration must incorporate the following principles:

- A high standard of ethics must be promoted and maintained;
- Efficient, economic and effective use of resources must be promoted.”

Contrast this with the following remarks made on national radio on 23 April 2013 by a Board Member of the National School of Government, summarised as follows:

- Despite some pockets of excellence public service is not adequate to deal with implementation of the necessary infrastructure.
 - We have a civil service that does not address public needs.
 - There is a blurring of administrative imperatives and political deployment.
 - Qualifications alone are not adequate, we need a positive attitude.
 - Competent people with a passion for service and high ethical conduct are needed in the civil service.
 - We must maintain our institutional memory.
 - An environment of promotion of excellence is essential.
- Perhaps South Africa needs to take as its lodestone the example of the success story of the so-called “South East Asia Tiger Cubs”, whose recipe for success was based on:
- Committed, strong, competent and honest political and administrative leadership
 - Consensus on a clear national vision and attention directed towards this by all sectors of society
 - Creative, pragmatic and co-ordinated use of available resources
 - An organisational culture with a strong work ethic (Mitchell 2009).

There is much analytic literature which stresses that leadership and expertise are the prime requirements for success in this endeavour. Leadership is the most essential requirement. It embraces, at the least:

- Providing vision and strategic direction
- Embracing an ethical and inspirational approach to carrying out one’s function
- Conceptual thinking ability
- Having a capacity for strategic relationship management
- Displaying customer focus, technical skills and expertise
- Possessing good governance abilities
- The ability to mentor and develop others
- Resilience self-development and self-management.

CONCLUSION

The restoration of the ability for authorities to effectively implement road programmes will not be an easy task. It is, however, a necessity if the country is not to have its economic and social development severely hampered by the consequences of an inadequately provided and maintained road network.

Some background to the problem is given in this short discussion, but much more debate is necessary to arrive at a successful and implementable solution. We need to strengthen all the drivers of performance in this endeavour.

In terms of the 4S framework:

- Strengthening structures and accountability will make it happen.
- Improving systems and capacity will be the catalyst to make it possible.
- Good skills and trust will make it flourish.
- Good service in government institutions will make it continue.

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