

Service delivery and service delivery protests in contemporary South Africa: A systems perspective

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A consistent feature of the post-apartheid South Africa has been the formulation of policies intended to improve livelihood of the previous disadvantaged people in the country. Improved service delivery was one of the ways of through which success of these policies would be manifested. In 2011, however, the country was experiencing at least two service delivery protests per week. To provide some insight into the situation, this paper presents a high level model of service delivery and service delivery protests in South Africa. From a qualitative viewpoint, it highlights the role of service delivery protests on services in the pipeline and on service depletion, and the importance of systemic time delays in determining the levels of government services offered at any particular time. Module simulations reveal that after accounting for the effect service delivery on services in the pipeline and service depletion, long term level of service delivery stabilization will depend on resources budgeted for the service delivery vis-à-vis community expectations of the level of service delivery. The paper recommends that the three aspects - services in the pipeline, service time delays and service depletion should form part of the government's planning and communication strategy to communities as part of its wider effort to reduce frequency of service delivery protests fuelled by improbable expectations.

Keywords: Service delivery, systems thinking, system dynamics, South Africa

1 Introduction

Post apartheid policy in South Africa has largely been underlined the resolve by the new government to improve livelihood of the previously disadvantaged South Africans. From the Reconstruction and Development Programme (RDP) of 1994 under which the government got directly involved in providing homes, running water, health services and electricity to previously neglected communities (Visser, 2004:7) to the Growth, Employment and Redistribution (GEAR) of 1996, the government intended to extend public services to hitherto neglected communities. Despite the good intention, service delivery as a manifestation of success of the new 'pro-poor' has remained inadequate at least in the eyes of many communities as evidenced by frequent service delivery protests.

The quest to improve service delivery in South Africa has motivated a number of multidisciplinary on the subject. Some researchers and public commentators are of the opinion that the policies being implemented by government are out rightly wrong. RDP was blamed for being a wish list for many people without realistically articulating what was achievable and was not achievable by government Terreblanche (2003:109) and Meyer (2000:2). GEAR was held responsible, by some, for perpetuating influence of the private sector on national economic activities like its was under the apartheid regime without strong interest in the plight of the previously disadvantage (Chabane, et al, 2006:549). Other authors have attributed lack of service delivery on inefficient process, institutional weaknesses and mismanagement. The media tend to attribute the slow pace of service delivery not on poor policies but on outright corruption by policy implementers. Overall, the question why service delivery still lags what was planned by the post-apartheid government plans is far from being settled. This paper adds a new dimension of system thinking and system dynamics modeling in this quest of service delivery improvement in South Africa. Section two of the paper introduces system thinking and the related system dynamics approach to policy articulation. In section three, the concept of resistance, a situation under which policy interventions lead to less than intended or unintended outcomes, is explored in the context of service delivery in South Africa. In section four, a high level model of service delivery in South Africa from a systems perspective is presented. Key relationships and model simulation results are also included in the section. Section five concludes with recommendations drawn from the model structure and simulation results.

2 Systems thinking to policy articulation

Systems thinking as an analysis method looks at how things influence one another within a whole. The analysis recognizes that in a complex world interventions cannot be directly matched with outcomes. The thinking is grounded in control theory and modern theory of nonlinear dynamics (Sterman, 2000). It provides a means by which to capture complex relationships and feedback effects within a set of interrelated activities and processes (Vennix, 1996, p.21). Its presentation has a user-friendly interface that encourages non-academics to internalise the logic behind the model.

System thinking as a precursor to the system dynamics methodology is based on the following principles:

- The existence of causal relations rather than mere statistical correlation: It aims at understanding the underlying causes of outcomes rather than correlation or forecasting.

- The adopted causal relationships are based on a “ceteris paribus” assumption despite the notion of causality being a debatable one.
- The time element should always be acknowledged. Over time, circular causality takes place, creating feedback effects. Without factoring in the time element some feedback effects will be suppressed
- Endogenous perspective: The internal structure as the main cause of dynamic behaviour of concern or outcomes.

3 Service delivery policy resistance in South Africa

Policy resistance is a central issue of concern in systems thinking and dynamics methodology and widely referred to in policy work. According to Meadows (1982, p.99) policy resistance occurs when policy intervention leads to delay, dilution, or defeat of the intended purpose. It is a tendency for intervention to be defeated by the response of the system to the intervention itself (Sterman 2000, p.3). Policy resistance often leads to the opposite of the intended results (Forrester, 1969). System dynamics singles out policy resistance as the main reason behind ineffective policy intervention. Forrester (1991) argues that as high as 98% of policies in a system have little effect on the intended systemic behavior because of the ability of the system to compensate for changes in most policies. Sterman (2002, p.504) contends that the narrow event-oriented worldview is the root cause of well-intentioned efforts to solve pressing problems creating unanticipated outcomes – a phenomenon also referred to as policy resistance.

Specific to service delivery in South Africa, improving the level and quality of services to the previous disadvantaged people in the country has been the guiding principle of most if not all government socio-economics policies post 1994. Despite this, the number of service delivery protests, some of which have been violent, has been increasing overtime contrary to what had been envisaged. Hence, what is happening in the country as far service delivery is concerned is indeed a situation of policy resistance as described in the systems thinking field.

One of the problems associated with effort to reduce the likelihood of policy resistance is failure to fully comprehend the thinking behind particular policy intervention and hence the reasons behind underachievement of the desired outcomes. Any actions taken to improve performance have ramifications, both spatial and temporal. Because of interdependencies, the time element, and non linearity, the human mind struggles to comprehend these ramifications. As a result, outcomes of interventions end up differing from what was expected to the surprise of intervention initiators. There is a need to enable policy initiators to see beyond space and time (Richmond, 2004).

Specific to solutions to the service delivery conundrum in South Africa, researchers have tended to focus on the following as the critical success factors:

- Process improvement
- Efficiency of institutions
- Increased monitoring
- Managerial efficiency
- Increased central funding

The implicit assumptions to this kind of ‘critical success factors’ policy intervention are that:

- The success factors operate independently of each other as far impacts on service delivery is concerned. For example, process improvement has a positive effect on service delivery but is neither influenced by institutional and managerial efficiency at local government levels
- That the outcomes of the actions do not influence the action itself, that is, causality is one way. Taking the example of housing delivery, it is assumed that more aggressive monitoring of building and delivery of low cost homes to homeless family will increase the number of beneficiaries but this increase will not affect the monitoring efforts
- Impact will be instantaneous. Delays and outcomes in pipeline are seldom taken into account. Using the housing delivery example again, how long it takes to build houses and houses in construction at any given time are parameters that are not well defined in the service delivery policy models. Almost nothing responses immediately. Although there may be some immediate reaction to an intervention, reactions take time to play out (Richmond, 2004).
- Impacts are linear. For example if remittance of R10 million per year from central government to a local authority for housing construction lead to building of 100 houses, if the remittance were to be increased to R20 million per year 200 hundred houses will be built. In reality this often true. Richmond (2004) contend that “what makes life interesting, and impact so difficult to predict, is that sometimes you can push ‘a ton’ and an ounce, while other times, the tickle of feather brings down the house.”

To overcome the shortcomings of the assumptions of conventional policy intervention, system thinking assumptions take explicit recognition of interdependence, two-way causality, delays and non-linearities. From a systems thinking perspective, the focus is not on correlation but causality because the former is only good enough for the purpose of correlation. When the overarching objective is to change performance, then the intention is then to seek how to alter relationships that existed in the past and to create new ones (Richmond, 2004). In this case it is causality and not correlation that is important to assist in identifying policy levers to effect the desired change.

Constructing a formal system dynamics model enables the capturing of these systemic relationships and in identifying leverage policy levers in service delivery process in the country while considering service delivery as a system. A presentation of the service delivery model, from a systems perspective is presented in the following section.

4 High level service delivery model for South Africa

The high level model for service delivery in South Africa is presented in Figure 1. The main stock is the level of service delivered government. The model includes an explicit conveyor for services in the pipeline to explicitly reflect that initiated services do not reach the communities immediately, subsequently introducing the time delay variable that hitherto has received little attention in service delivery policy discourse in the country.

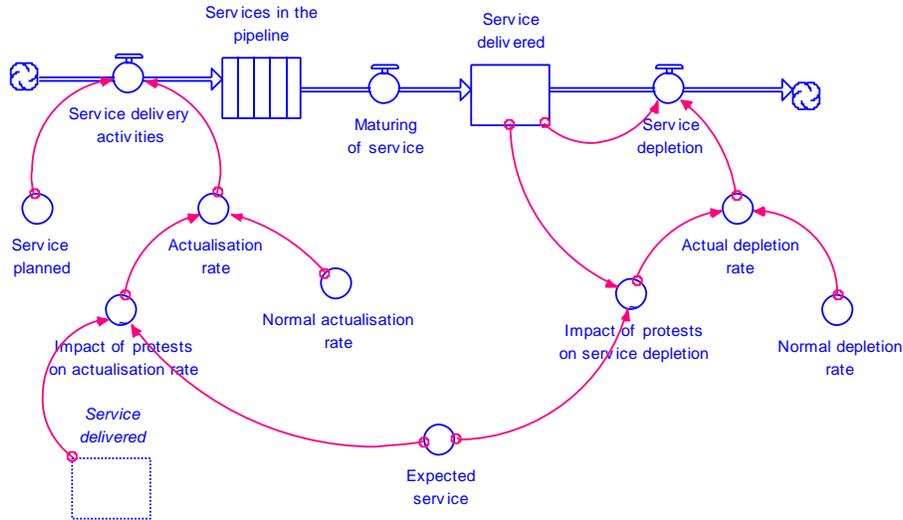


Figure 1: High level service delivery model for South Africa

In the model, the element of service delivery protest is indirectly captured and is set to depend on level of service expected by communities at a particular point of time and the actual level of service delivered. This ratio, in turn, has an impact on actual service implementation rate which is referred to in the model as actualization rate and on service depletion rate. The ratio of expected services to service delivered is set to negatively influence service actualization rate while augmenting the service depletion rate. The basis for this formulation is the observed disruptive effect of protests on planned services, on one hand and their destructive nature of the already available services. The complete specification of model equations is included as supporting material.

4.1 Model simulation: The time delay \transit period effect

Model simulations revealed that given a specific budget for planned service delivery, time delays had an effect on the period when increased service delivery would start, but not on overall levels at which service levels stabilised. Figure 2 and Figure 3 presents levels of service delivery achievable with specific budgets varying the transit time of services. The fundamental difference between the two scenarios is that it takes longer for initiated services to be available to the community with longer transit time.

Due to their disruptive nature, frequency of service delivery protest tend to increase the transit times exacerbating service deficit. This aspect has to be explicitly captured and communicated to all stakeholders to avoid undue expectations.



Figure 2: Levels of service delivery with planned service budget set at 10 billion rands (1), 10 billion rands (1), 12 billion rands (2), 15 billion rands (3), 15 billion rands (4) and 20 billion rands (5) with service transit period of 6 months

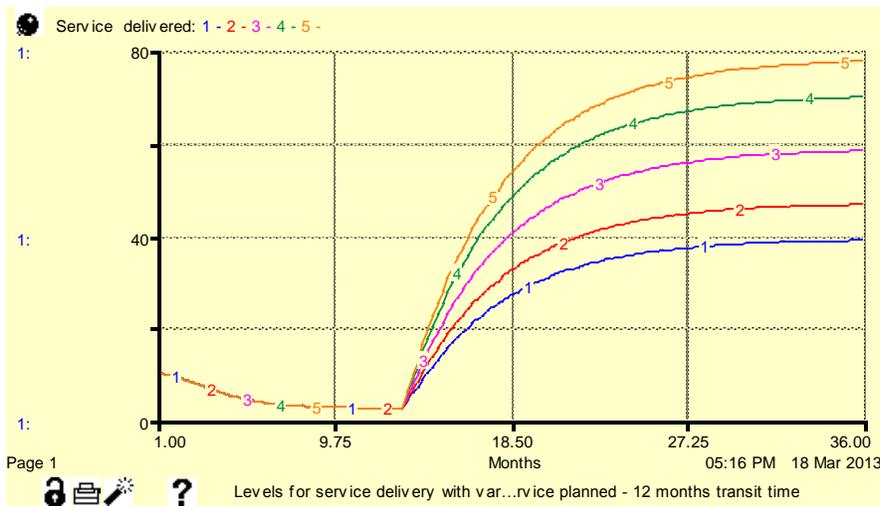


Figure 3: Levels of service delivery with planned service budget set at 10 billion rands (1), 10 billion rands (1), 12 billion rands (2), 15 billion rands (3), 15 billion rands (4) and 20 billion rands (5) with service transit period of 6 months

4.2 Service depletion effect

Level of service delivery was very sensitive to service depletion rate. With low depletion rates, the level of service delivery continued to increase though at the decreasing rate (Figure 4). With high rates of service depletion, levels of service delivery stagnated at fairly low levels. To the extent that service protests augment the depletion rate, such protests negatively affect the overall levels of services achievable in the long term.

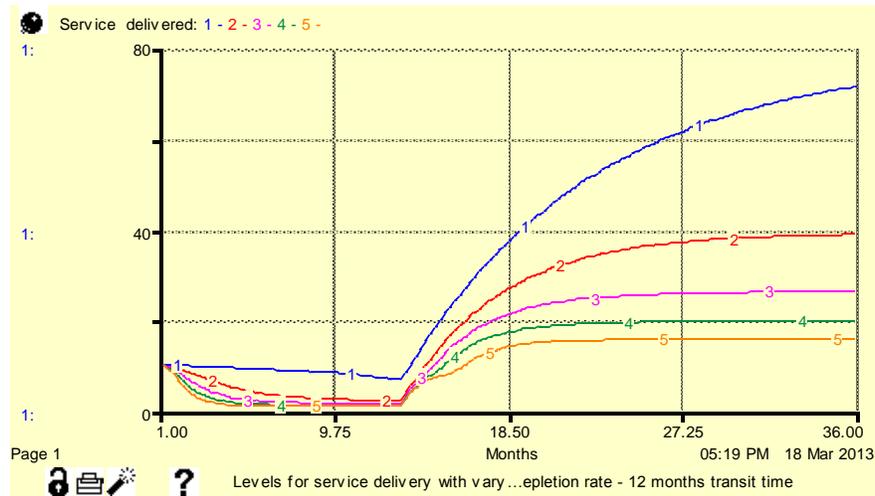


Figure 4: : Levels of service delivery with normal service depletion rates set at 0.1 (1), 0.2 (2), 0.3 (3), 0.4 (4), 0.5 (5) and with transit time set at 12 months

4.3 Incremental versus reducing budgets for service delivery

The default budget for service delivery was set at 10 billion rands per month. The model was simulated to establish the effect of consistent increase in budgets allocated to service delivery versus budget reductions over time. Simulation results showed that whereas consistent budget increase resulted into increased service delivery overtime (Figure 5), with less money being allocated to service delivery, less services will be available for the people over time (Figure 6). So even to maintain the same levels of service delivery, budget allocations should be increasing overtime.

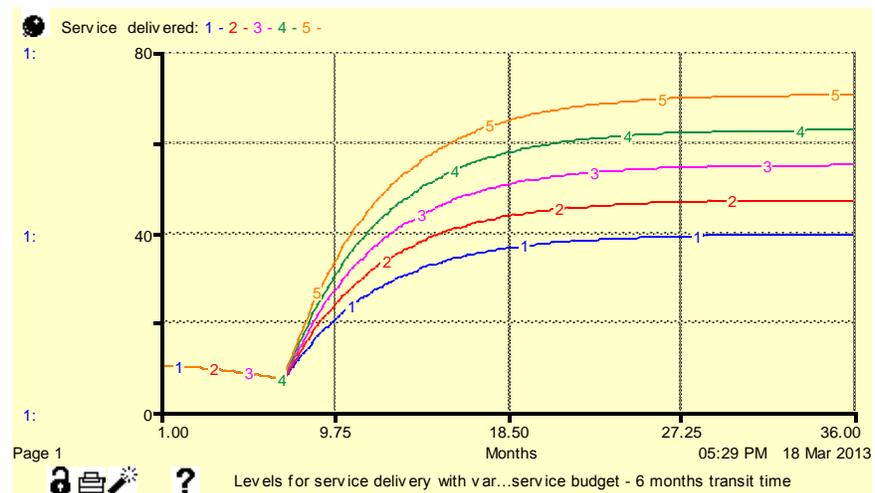


Figure 5: Levels of Service delivery with planned service budget set at 10 billion rands (1), 10 billion rands (1), 12 billion rands (2), 15 billion rands (3), 15 billion rands (4) and 20 billion rands (5)

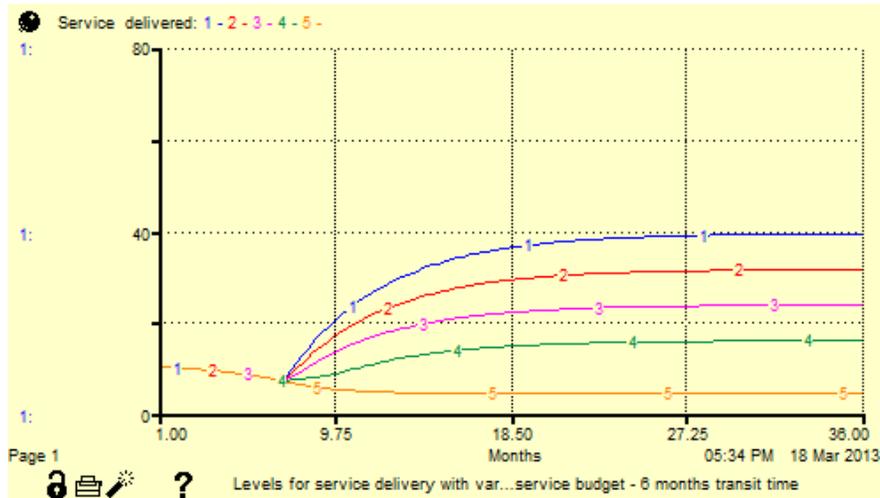


Figure 6: Levels of Service delivery with expected service budget set at the default 10 billion rand (1), 8 billion rand (2), 6 billion rand (3), 4 billion rand (4), 2 billion rand (5) and with transit time set at 6 months

5 Conclusions and insights

Systems thinking and system dynamics modeling shift focus of policy analysis from policy outcomes to factors underlying realization of these outcomes – processes and structures. In search of means to contain the social discontent in South Africa, the approach opens up opportunity for public policy discourse in the country to target processes and structure that have a bearing on intended outcomes.

The gap between expected services level and the actual services offered by government has been a key contributor to service delivery protests in South Africa. This paper highlights the role of service delivery protests on services in the pipeline and on service depletion, and the importance of systemic time delays in determining the levels of government services offered at any particular time. Remedial measures to reduce the of frequency service protests, in the country have thus far not explicitly incorporated the systemic role of these aspects. Moreover, little effort has been made in highlighting how these aspects were affecting the level of service delivery at any particular time. Acknowledgment of the role and importance of services in the pipeline, service depletion and service time delays in the service delivery space can play an important role in bridging the gap between people’s expectations and the level of government service delivery at any particular time. Against this background, it is recommended that these three aspects - services in the pipeline, service time delays and service depletion should form part of the government’s planning and communication strategy to communities as part of its wider effort to reduce frequency of service delivery protests fuelled by improbable expectations.

Future work in the project will involve disaggregation of the model and focus on specific services for example houses for the poor.

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