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LOCAL GOVERNMENT EQUITABLE SHARE FORMULA REVIEW

DISCUSSION PAPER 2:

Analysis of the Current Local Government Equitable Share Formula

May 2012

Local Government Equitable Share Formula Review

1. INTRODUCTION

Local government is entitled to an equitable share of revenue raised nationally to enable it to provide basic services and perform the functions allocated to it In terms of section 227 of the constitution. The size of local government's equitable share is decided through the national budget process. Local government's share then has to be divided among the country's 278 municipalities in a 'horizontal division.' This is done through a formula that uses objective data so that the split cannot be arbitrarily manipulated to benefit an individual municipality.

The local government equitable share (LGES) formula is being reviewed during 2012, with the intention to use a revised formula to determine the LGES allocations to municipalities in the 2013 budget. This revised formula will incorporate updated data from the 2011 Census. As part of the review process, extensive consultation with all municipalities as well as other stakeholders is planned. This discussion paper forms part of the consultation process by providing a background on the history and structure of the formula and some analysis of the allocations determined through it. The intention of the paper is to provide stakeholders with background information to enable them to engage more fully with the review of the LGES formula.

This paper begins by setting out the place of this LGES formula review within the wider context of the review of the local government functional and fiscal framework. The history of the LGES and the different formulas that have been used to divide it among municipalities is then briefly described. The paper then takes a closer look at the individual components that make up the current LGES formula, describing how they are structured and then analysing what impact this has on the allocations determined through each component. The paper then provides a high level analysis of the allocations determined through the formula, showing how the changes discussed in the history of the formula have impacted on the allocations to different types of municipalities. Towards the end of the paper a brief summary of the major strengths and weaknesses of the formula identified by the LGES review working group is provided. Because this paper is intended to assist stakeholders to engage with the LGES formula review, throughout the paper there are discussion questions posed that stakeholders are invited to provide their views on. Details on how stakeholders can contribute to the LGES formula review are provided in the final section of the paper.

2. CONTEXT OF THE LGES REVIEW

The LGES formula review forms part of the review of the local government functional and fiscal framework (LGFFF) being undertaken jointly by the Department of Cooperative Governance and the National Treasury.

The LGFFF refers to the responsibilities and resources of municipalities. The functional aspects of the framework consist of the authority and responsibility to deliver public goods and services assigned to local government. The fiscal aspects of the framework consist of the revenue sources assigned to local government, including own revenues, borrowing and intergovernmental grants, that enable municipalities to meet their functional responsibilities. The LGFFF review therefore has the scope to take a holistic view of the local government system and consider its many interrelated aspects.

As part of the LGFFF review a range of functional and fiscal questions will be considered including, among others, reviews of:

- conditional grants,
- the functional assignments of municipalities,
- the governance framework for intergovernmental relations, and
- the implementation of differentiated approaches to dealing with municipalities.

Local Government Equitable Share Formula Review

Many of the issues not dealt with in this LGES formula review due to its limited scope will however be addressed as part of the broader LGFFF review. The timelines for the LGFFF review are longer than those for the LGES review as they are not constrained by the deadlines of the 2013 budget process. The LGFFF review is expected to be conducted over the next two years, meaning that there is a possibility that significant policy recommendations emerging from that process could have implications for the LGES formula. It is possible that these will require further adjustments to the formula after this LGES formula review has been completed. This is an unavoidable consequence of the tight timeframes under which the LGES formula review must be completed.

3. HISTORY OF THE LGES FORMULA

The equitable sharing of nationally raised revenue between the three spheres of government came into effect from 1 July 1998 in line with the implementation of the final Constitution. The constitutional obligations that the new formula was introduced to address are outlined in the accompanying discussion paper on the principles and objectives of the LGES formula. This section describes the original equitable share formula that was introduced in 1998 as well as the subsequent changes to that formula and the outcomes of the review of that formula that led to the current LGES formula being introduced in 2005 and the subsequent amendments to the current formula.

3.1 Evolution of the formula used to distribute the LGES, 1998 - 2004

In 1998, the Department of Finance (equivalent to the contemporary National Treasury) proposed that local government's share of nationally raised revenue (i.e. the local government equitable share or LGES) be shared amongst the country's municipalities using a formula-based mechanism. The utilisation of a formula-based mechanism ensured that allocations were objective, transparent, scientific and beyond manipulation by policy makers or municipalities. The formula proposed comprised of four formulae driven sub-grants, namely:

1. The basic services grant
2. The municipal institution grant
3. The tax base equalisation grant
4. The matching grant

The basic services (S) grant intended to supplement the cost of providing basic services to poor households, while the municipal institution (I) grant supported the funding of the institutional and political structures of municipalities. The tax based equalisation grant was designed in accordance with the existence of substructures within metropolitan municipalities and intended to minimise fiscal disparities across these substructures. The matching grant was designed to address the impacts of inter-jurisdictional externalities that might arise from the provision of services.

Ultimately only the basic services grant and the municipal institution grant were used to allocate funds to local government for the 1998/1999 financial year. The tax based equalisation grant and the matching grant were not implemented and subsequently removed from the formula, as the former became defunct due to changes in the configuration of metropolitan municipalities while inter-jurisdictional externalities could not be accurately measured to implement the latter grant.

The S and I grants therefore determined the bulk of allocations made through the original LGES formula, which operated from 1998 till 2004 when a comprehensive review of the LGES was undertaken. During this period, substantial structural and policy changes

Local Government Equitable Share Formula Review

occurred in the broader local government system. These developments resulted in new funding priorities and structural changes that had to be made to incorporate these into the LGES. The additional funding priorities mainly took the form of additional sub-grants or funding windows being added to the LGES. The changes to the system and the LGES from 1998 to 2004 are summarised chronologically below:

- Introduction of the LGES formula in 1998
- The removal of funding for the South African Local Government Association (SALGA) through the LGES as SALGA is not constitutionally defined as part of the local government sphere (1999/2000)
- Funding for former R293 towns to shift functions from provinces to municipalities in the former homeland areas was included as an additional funding window in the LGES (with the exclusion of the R293 personnel component which remained a conditional grant) (2000/01)
- Change in the poverty measure from income (households earning less than R800 per month) to imputed expenditure (Households spending less than R1 100 per month) (2001/02)
- Incorporation of the personnel subsidies to R293 towns (2001/02)
- Introduction of indicative three year allocations (2001/02)
- Re-alignment of functions to new municipalities including the funding of district municipalities (2002/03). Initially, the formula only allocated funds to category A and B municipalities. Where category B municipalities lacked capacity to deliver services, funding was allocated to the respective category C municipality.
- Nodal Priority Programmes – additional funds were made available for specific programmes in specified nodal areas in 2002/03. This was included as a separate funding window in the greater LGES
- Free Basic Services – government implemented a policy for a portion of electricity, sanitation, refuse and water be provided free of charge to poor households. Additional funding for these services was made available in the LGES through separate funding windows in 2003/04.
- The funding of district municipalities and the re-alignment of powers and functions between local and district municipalities in (2002 – 2004)
- Commencement of the review of the previous formula in 2004
- Update of fundamental data of the formula from 1996 census to 2001 census (2004)

The 2004/05 financial year was the last year where the LGES was distributed using the original formula. At the time, the formula itself consisted of six separate funding windows each with its own structure. These windows and their relative contribution to the overall LGES are summarised in table 1 below.

Table 1: The LGES formula in 2004 showing allocations through each funding window

Funding Windows of the 2004 LES	Allocations	%
R293 allocations	263 000 000	4%
S-grant	4 746 000 000	67%
I-grant	473 000 000	7%
Nodal allocations	228 000 000	3%
Free basic services (water, sanitation and refuse)	867 000 000	12%
Free basic electricity/energy	500 000 000	7%
Total	7 077 000 000	100%

Source: Annexure E to the 2004 Division of Revenue Bill

Local Government Equitable Share Formula Review

The basic services (S) grant formed the largest part of the previous LGES formula, 67% of the total LGES. The remaining 33% comprised of the other 5 windows of which the Free Basic Services (FBS) grant (for water, sanitation and refuse removal) was the largest. Each of these grants was determined by its own formulae. These formulae, at the point of discontinuation, are depicted below.

The S Grant

$$S = \alpha \beta L H_i$$

Where :

- α = a phase-in parameter with $0 < \alpha \leq 1$;
- β = a budget-adjustment parameter, set to adjust the size of the grants to the available budget;
- L = an estimate of the annual cost of providing basic public services; and
- H_i = the number of poor households.

	Parameter	2004/05	2005/06	2006/07
α	Rural alpha	0.85	1	1
	Urban alpha	1	1	1
β	Budget adjustment parameter	0,559	0,835	0,909
L	Annual cost of basket of basic services per poor household	R1 032		

The S grant comprised the largest proportion of the previous LGES formula. It supported the provision of basic services to poor households. In the S grant poor households were defined as households spending less than R1100 per month. The number of households spending less than this amount per municipality were subsidised for the cost of a package of basic services. This package of basic services was estimated to cost R1032 per annum. The formula also contained a budget adjustment parameter that ensured the budget for the S grant was fully allocated. Importantly though, an alpha parameter was included to account for the, “different levels of present actual servicing of the poor in urban and rural areas.” In other words it accounted for the fact that not all poor households in every municipality were able to access municipal services (because not all households were connected to municipal infrastructure) and so the formula did not immediately fund all municipalities for the costs of providing services to all their poor households. When the formula was introduced in 1998, alpha was set at 0.6 in urban areas and 0.1 in rural areas, it was then increased by 0.1 each year until it reached a value of 1 (in both rural and urban areas). This means that in effect the formula would phase in funding for the costs of basic services to all poor households in urban areas over five years and all poor households in rural areas after 10 years. It was assumed this would give these municipalities time to eradicate backlogs and build infrastructure to service all their households.

Local Government Equitable Share Formula Review

The I Grant

$$I_i = I_0 P_i^\gamma - 0.075 (y_i - 250) P_i \quad I_i = I_0 P_i^\gamma - 0.075 (y_i - 250) P_i$$

Where: I_0 = a per capita I-grant parameter that serves to determine the total amount of money allocated through the I-grant;

P_i = is the population in the municipality i ;

γ = a scale parameter that could take any value > 0 and ≤ 1 ; and

y_i = is the average monthly per capita expenditure in municipality i for values of y_i below the stated monthly per capita floor of R250, the term $(y_i - \text{per capita floor})$ is set equal to zero.

	Parameter	2004/05	2005/06	2006/07
I_0	Per capita parameter for category B municipalities	R175 684	R181 392	R186 799
	Per capita parameter for category C municipalities	R266 612	R273 153	R279 053
γ	Scale parameter	0.25		
y_i	Average monthly per capita expenditure threshold	250		
	Population cut-off	5 000		
	Per capita floor	R250		

The first part of the formula estimates the cost of operating a municipal administration given the current population of the municipality. The I_0 parameter is the per capita allocation that is multiplied by the number of people within a municipality (P_i). Note that there is a scale factor, γ , that takes a value between 0 and 1. The value was set at 0.25. Since this value is below 1, the higher the population of a municipality, (P_i), the smaller the $I_0 * P_i$ value. This is due to the assumption that administrative costs increase at a lower rate as population increases (economies of scale).

The second part of the I grant formula accounts for the ability of a municipality to fund its administration from its own revenues. The variable y_i measures the average monthly expenditure per capita per municipality. The equation $(0.075 * (y_i - 250) P_i)$ assumes that for individual expenditure above R250 (the minimum expenditure level), individuals are willing to pay 7.5% of their total monthly expenditure on property rates. If y_i is below R250 then $0.075 * (y_i - 250) P_i$ is set to zero. An important feature of the I grant was that metropolitan and large local municipalities did not qualify for allocations through this component. It was assumed that such municipalities had substantial fiscal capacity to fund their administrations with their own revenues.

The FBS Grants

The FBS grants comprised of two windows, one for FBS (water, sanitation and refuse removal) and another for Free Basic Electricity (FBE). Each window was determined separately using the same formula. The final allocation for FBS/FBE was determined by two sub-components as:

Local Government Equitable Share Formula Review

$$FBS = \frac{1}{2}(FBS_1 + FBS_2)$$

$$\text{Where } FBS_1 = \theta FH$$

$$FBS_2 = FW * H_1 + FS * H_2 + FR * H_3$$

θ	=	urban/rural weighting factor
F	=	an FBS allocation for a poor household
H	=	number of poor households per municipality
FW	=	an allocation for free water
H_1	=	poor households receiving water services
FS	=	an allocation for free sanitation
H_2	=	poor households receiving sanitation services
FR	=	an allocation for free refuse
H_3	=	poor households receiving refuse services

Nodal allocations

Nodal allocations prioritised funding to predetermined underdeveloped areas. This allocation was loosely based on the S grant and accrued to municipalities identified as nodal areas.

R293 allocations

These were operational and staff subsidies afforded to municipalities in the former Bantustan areas to support the transfer of municipal functions (the former R293 areas were incorporated into provinces) and personnel from provinces to these municipalities. It initially comprised of a personnel and non-personnel component (which was phased out).

Other considerations in the previous formula

The formula adhered to a guarantee principle such that municipalities were guaranteed 70 per cent of the previous year's allocation. There was also a minimum allocation mechanism in the formula. Municipalities were guaranteed a minimum allocation of R1 million. These levels are considerably lower than the guarantees and allocations in the current LGES formula outlined below.

3.2 The Current LGES Formula 2005 - present

There were several concerns with the previous LGES formula that resulted in its review and the introduction of a new formula from the 2005/06 financial year. Some of the concerns included:

- Transparency and simplicity – stakeholders were concerned that the formula was not transparent and simple enough to understand and scrutinise
- Funding widows – the existence of funding windows was a major criticism of the previous formula as they caused concerns around the objectivity and equity of allocations
- Inflexibility of the formula – changes in the policy and structural environment of local government resulted in the addition of funding windows to incorporate such changes. The formula was not structured to objectively account for such changes.

Local Government Equitable Share Formula Review

Following the review process, the current LGES formula was introduced with the following structure:

$$\text{LGES} = \text{BS} + \text{I} + \text{D} - \text{RRC} \pm \text{C}$$

Where:

BS	=	Basic Services Component
I	=	Institutional Component
D	=	Development Component
RRC	=	Revenue Raising Capacity Correction Component
C	=	Correction and Stabilisation Factor

A detailed description and analysis of each component will be undertaken in the subsequent section of this discussion paper. The following list provides a brief summary of the most significant changes made to the current LGES formula since its introduction in 2005:

- Introduction of funding for municipal health services as part of the basic services component (2007/08)
- Change in the measurement of the RRC correction and the introduction of the differentiated tax system in the RRC (2009/10)
- Adjustments to the subsidy levels in the BS component in light of the large increases in the electricity bulk price (2010/11)
- Removal of the population escalation factor from the I-component and its replacement with a poverty factor and reweighting of the basic services subsidies for serviced and un-serviced households (2011/12)

3.3 Comparing the original and current LGES formulas

The table below highlights some of the differences between the current and previous formulae as well as the advantages and disadvantages of the original LGES formula.

Local Government Equitable Share Formula Review

Table 2: Comparison between current and original LGES formulas

Original formula (1998)	Current formula (2005)	Pros / Cons
Based on a “windows” approach where monetary values could be allocated to the different components	Based on a “components” approach where the formula determines the share of each component	In the latter years of the original formula, various new “windows”, such as nodal allocations were introduced that were largely run outside the formula. This put the “equity” principle at risk
For first year only (1998/99), SALGA was funded out of a portion of the equitable share. Thereafter, it was removed from formula and placed on-budget	-	This shift was made due to constitutionality concerns (SALGA does not fall within the definition of “local government” or “municipality”)
Formula only allocated to category A and B municipalities (and not Cs). In instances where local municipalities were deemed to lack capacity, which was determined annually in consultation with provinces, such allocations flowed via the district municipalities	Basic Services component, which is largest share of formula, is allocated to municipalities authorized for service (either category B or C)	This amendment was necessitated through a court ruling
Original formula contained a services component which differentiated between rural and urban areas. This took into account the different levels of access to services in these areas. In later years, two new windows for free basic services were introduced that took this into account	The Basic Services and Free Basic Services windows were consolidated. The new component takes existing infrastructure connections into account but not urban/rural differences	The current Basic Services component has resulted in larger allocations to urban areas
The Institutional window deliberately excluded larger municipalities with a stronger own revenue base	The Institutional Component is allocated to all municipalities	Cannot in existing formula analyse only this component as the various components function jointly (monies are taken away though revenue raising component which is much larger than the I grant benefit to metros)
Revenue raising correction was applied to the Institutional window only	The revenue raising component was introduced as a separate component and applied to the full formula where the impact is much more extensively applied (although a development component was also introduced, it was never activated)	Concerns have been raised by various stakeholders on the current method of measuring this component
Balancing of formula to available money done through a separate process	Stabilising component forms part of formula	Existing formula easier to administer

DISCUSSION QUESTIONS:

- Was the practice in the original LGES formula that municipalities with sufficient revenue raising ability not receive any funding for institutional costs correct and should it be considered for the new LGES formula?
- Should services be funded individually through the LGES or should there be a generic allocation for a basket of municipal services?
- If individual services are to be funded, what services should be included in a revised LGES formula?
- Is there a difference between the provision of basic services and free basic services that requires separate funding streams as was the case in the original LGES formula?

Local Government Equitable Share Formula Review

4. ANALYSIS OF THE COMPONENTS OF THE CURRENT LGES FORMULA

LGES allocations are unconditional and it is the choice of municipalities how they appropriate the funds in their budgets in order to meet their constitutional and legislative mandates and responsibilities. Despite the unconditional nature of the LGES, the formula used to determine allocations is made up of components that are based on the particular functions and characteristics of municipalities. This section analyses each component in order to help us better understand how the current formula works to calculate the final allocation to each municipality.

4.1 Structure of the formula

The LGES formula consists of five components (some of the components add funds while others subtract):

- The *basic services component* is worth 99.4 per cent¹ of the value of the equitable share and provides for the cost of free basic services for poor households as well as municipal health services.
- The *development component* is dormant.
- The *institutional support component* is worth 7.9 per cent of the value of the equitable share and provides a subsidy for the costs of running a basic municipal administration.
- The *revenue-raising capacity (RRC) correction* accounts for the fact that some municipalities have a much greater ability to raise own revenues than other municipalities and subtracts 7.4 per cent of the value of the equitable share, primarily from the wealthiest municipalities in order to make those funds available for poorer municipalities.
- The *correction and stabilisation factor* makes sure all of the guarantees in the formula can be met and accounts for a negligible proportion of the final equitable share allocations.

The structure of the formula is summarised in the box below. It is important to note that the structure includes some components that add funds to LGES allocations and other components that subtract.

<p style="text-align: center;">Structure of the local government equitable share formula</p> $\text{Grant} = BS + D + I - R \pm C$ <p style="text-align: center;"><i>where</i></p> <p>BS is the basic services component D is the development component I is the institutional support component R is the revenue-raising capacity correction and C is a correction and stabilisation factor.</p>

Rescaling the LGES allocations

The “horizontal division” of allocations made between municipalities depends on the size of the overall allocation that is made to the local government sphere, determined through a

¹ Note that this percentage reflects the value of the funds allocated through the basic services component before the revenue raising capacity (RRC) correction is subtracted.

Local Government Equitable Share Formula Review

separate consultative process to determine the equitable share of nationally raised revenue for each of the three spheres of government (i.e. the “vertical division”). The allocations made by the LGES formula as outlined above will not necessarily add up to the amount allocated to the local government equitable share as a whole. To ensure that all of the available LGES funds are allocated an adjustment factor is applied as shown in the box below.

Rescaling of the BS, D and I components

The simplest way of making the system balance is to rescale the BS, D and I components to the available budget, hence the formula actually becomes:

$Grant = Adjustment\ Factor * (BS + D + I) - R \pm C$

This adjustment factor is calculated so as to ensure that the system balances.

This rescaling has a significant effect on the size of LGES allocations. In the formula for 2012/13 the value of the adjustment factor was 4.95, meaning that the allocations in the basic services and institutional components are multiplied nearly five times before having the RRC and C components applied to them.

3.2 The relative weights of the different components

The tables below show the relative sizes of the different components for various groups of municipalities. In this table (and all the subsequent data in this section) the figures quoted for the basic services and institutional components are the full amounts generated by the LGES formula before the RRC correction is applied. This illustrates how the structure of the formula works, (as demonstrated in table 3, below) with amounts allocated to each municipality for the basic services and institutional components, then an amount subtracted through the RRC correction (to account for own revenue raising capacity) and finally a small adjustment to meet guarantees is made in the stabilisation component (which can be an addition or a subtraction) before we arrive at the final allocation.

Table 3: Average LGES allocation per type of municipality, 2012/13

R'000	Basic services	Institutional	RRC	Stabilisation	TOTAL
Metros	1 422 677	27 469	-220 472	-328	1 229 346
Secondary cities	233 304	12 809	-10 520	-63	235 530
Large towns	78 963	8 992	-3 400	-23	84 532
Small towns	39 048	5 936	-570	-12	44 402
Rural municipalities	82 142	12 206	-78	-25	94 245
Unauthorised districts	13 682	8 549	-6 022	387	16 596
Authorised districts	232 299	11 245	-4 070	-64	239 410

Table 4: Average percentage contribution of different LGES components to final allocation, by type of municipality, 2012/13

R'000	Basic services	Institutional	RRC	Stabilisation	TOTAL
Metros	116%	2%	-18%	0%	100%
Secondary cities	99%	5%	-4%	0%	100%
Large towns	93%	11%	-4%	0%	100%
Small towns	88%	13%	-1%	0%	100%
Rural municipalities	87%	13%	0%	0%	100%
Unauthorised districts	82%	52%	-36%	2%	100%
Authorised districts	97%	5%	-2%	0%	100%

Local Government Equitable Share Formula Review

The basic services component is the largest component for all municipalities and the institutional component is the second largest for all groups of municipalities except the metros, who have significantly more subtracted through the RRC correction than they receive through the institutional component.

The subsections that follow describe in detail how the allocations for each component of the formula are determined and analyses the impact of these allocation mechanisms on the amounts allocated to different groups of municipalities.

Note on the groups of municipalities used for analysis in this document

The number and variety of municipalities in South Africa makes it impossible to analyse municipal allocations without dividing municipalities into different groups so that we can identify the different impacts of aspects of the formula on different types of municipalities. Throughout this discussion document the typology from the Department of Cooperative Governance's Municipal Infrastructure Investment Framework are used. This framework divides the country's 278 municipalities into 7 groups as follows:

Metros	8 Metropolitan municipalities
Secondary cities	19 local municipalities that include secondary cities
Large towns	27 local municipalities with large towns that serve as their economic cores
Small towns	110 local municipalities with largely agricultural economies and small towns and small total populations.
Rural municipalities	70 local municipalities with large populations mostly living in dispersed settlements, with only a small proportion of the population living in the small towns in these municipalities. These municipalities tend to have very low levels of economic activity.
Unauthorised districts	23 District Municipalities that are not authorised to perform the water and sanitation functions as all of their local municipalities are authorised for these functions.
Authorised districts	21 District Municipalities that are authorised to perform the water and sanitation functions as not all of their local municipalities are authorised for these functions. These districts tend to be in the poorest parts of the country.

The table below provides some illustrative statistics for each of these groups of municipalities. The data in the table is from the 2001 Census as that is the base used for calculating allocations in the current LGES formula

Table 5: Illustrative statistics for different groups of municipalities

	Total Population	total number of households	Average population size	Average number of households	% of HH in poverty (< R800)	% poor HH without access to basic services	Population density per square km	GVA per capita*
Metros	16 188 578	4 727 723	2 023 572	590 965	34%	30%	1 092	48 827
Secondary cities	6 049 781	1 672 494	318 410	88 026	42%	36%	223	38 938
Large towns	3 687 448	1 016 747	136 572	37 657	44%	40%	85	27 447
Small towns	6 375 078	1 641 157	57 955	14 920	53%	40%	17	21 808
Rural municipalities	12 518 893	2 724 514	178 841	38 922	69%	77%	82	8 839

* GVA figures are based on average GVA for 2004-2009 calculated by IHS Global Insight. All other data from the 2001 Census (StatsSA).

Local Government Equitable Share Formula Review

3.3 The Basic Services Component

This component is by far the largest in the formula and accounts for 92.4 per cent of the value of final LGES allocations in 2012/13. The component takes account of five services, namely:

- Electricity
- Water
- Sanitation
- Refuse
- Municipal Health

The purpose of the *basic services component* is to assist municipalities in providing free basic services to poor households and with funding municipal health services². For each of the subsidised basic services there are two levels of support: a full subsidy for poor households that are connected to municipal services, and a partial subsidy for poor households that are not yet connected to the municipal networks. The allocation for un-serviced households is set at a 45 per cent of the value of the subsidy to serviced households.

The following are the major factors driving allocations through this component:

Poverty

For this component poor households are defined as those with a monthly income of less than R800 in the 2001 Census (if this amount was grown to account for inflation it would be worth just under R1500 in 2012). Several weaknesses have been identified with defining poverty in this way, including that households that reported income of just above R800 in the 2001 Census have no allocation made against them in the formula, despite being little better able to pay for their own services than those reporting an income of just below R800. Income is also typically under-reported in household surveys. Other methods like imputed expenditure or poverty quintiles (currently used in the provincial equitable share formula) may give a better estimate of the ability of households to pay for municipal services.

Access to services

South Africa still faces major backlogs in access to municipal services. Many households still do not have access to the infrastructure necessary to provide them access to water, sanitation, electricity and refuse removal. National government funds municipalities to build infrastructure to provide access to these services through several conditional grants (including the Municipal Infrastructure Grant, Urban Settlements Development Grant and Integrated National Electrification Programme Grant). However, despite billions of rands in investment over the last decade-and-a-half, major backlogs still remain across the country. The LGES allocates funds for both those poor households that have access to services and those that do not, but at different rates. The equitable share formula only allocates 45 per cent of the amount per service to un-serviced households that it allocates for serviced households. This ensures that municipalities do not receive funds for services they are not actually providing (they should however be providing alternative services to un-serviced households). It also creates an incentive for municipalities to increase access to services among poor households as this will ensure greater equitable share allocations in the future.

² Municipal health services consist of providing environmental health services which are defined as follows in the Health act: "Environmental health services' are (a) water quality monitoring; (b) food control; (c) waste management; (d) health surveillance of premises; (e) surveillance and prevention of communicable diseases, excluding immunisations; (f) vector control; (g) environmental pollution control; (h) disposal of the dead; and (i) chemical safety. Environmental health services, however, excludes port health, malaria control and control of hazardous substances."

Local Government Equitable Share Formula Review

Unfortunately this incentive effect will not be very effective if the data used in the LGES formula is only updated every 10 years. Between censuses, municipalities will have to bear the cost of newly serviced households without immediately receiving an increased LGES allocation. In order to alleviate this problem, in 2011/12 the level of the subsidy for un-serviced households was increased from 33 per cent to 45 per cent, on the assumption that a large proportion of these households would now be receiving services and be costing municipalities more (large increases in the amount allocated through the LGES in previous years also assisted to cover the costs of more households gaining access to services).

Basic services

The The Municipal Systems Act, (Act No. 32 of 2000) defines basic services as follows: “*basic municipal services means a municipal service that is necessary to ensure an acceptable and reasonable quality of life and, if not provided, would endanger public health or safety of the environment*”. The five services funded through the current formula all appear to meet the requirements of this definition:

- Water: clean drinking water is essential for health as unsafe drinking water is a major contributor to the spread of disease.
- Sanitation: is essential for health as poor sanitation can lead to the spread of disease. Sanitation also contributes to dignity and an acceptable quality of life.
- Refuse removal: contributes to health by removing unsafe materials and potential breeding grounds for disease.
- Electricity for lighting: is necessary for an acceptable quality of life, especially where people need to study or do work at night. It is also a safer source of energy than fires, and limits the danger to public safety of dwellings burning down.
- Municipal health: this function mainly involves the regulation of environmental health, which has a direct link to public health and environmental safety.

The allocations for each of these services go to the municipalities authorised for these functions. In areas with both district and local municipalities this means that the district always receives the municipal health funding and the local always receives the electricity funding but other services are allocated differently in different areas based on which municipality is authorised for each function. This has a significant impact on the relative size of LGES allocations to district and local municipalities in different parts of the country.

The Financial and Fiscal Commission (FFC) recommended in 2001 that eight services be funded through the LGES as basic services. These include all five of the basic services listed above, as well as fire fighting, stormwater management and municipal roads. In the view of the FFC all of these services except electricity were defined as basic services in terms of at least three of the following four criteria:

- Being in the Bill of Rights
- Being essential to life (in terms of the definition in the Municipal Systems Act)
- Contributing to social and economic development (in terms of section 153(a) of the constitution)
- Being listed in policy or legislation

Although electricity only meets the last two criteria, the FFC recommended it be included as a basic service on the basis of the strong emphasis on electricity provision in government policy.

Local Government Equitable Share Formula Review

Quantity of services

The LGES allocations assume that municipalities provide poor households with a quantity of free basic services in line with national policy norms. This means that the LGES formula only funds services to poor households and is only intended to fund services that meet the RDP requirements for levels of services³. The quantities of free basic services funded through the formula are those quantities stipulated in national free basic services policies - electricity at 50kWh per month and water at 6kl per month. If municipalities choose free basic services policies that are more generous than these norms provide for, then it is up to them to fund those additional levels of service.

Population growth

In theory population growth (and changes in other variables like access to services and poverty levels) is accounted for through updates to the data used in the formula). However, because only census data has proved to be accurate at municipal level, in practice there can be up to a ten year gap between data updates. Although the 2007 Community Survey attempted to provide data at municipal level, testing of the data revealed it to not be robust at municipal level. This means that the population growth (and changes in other variables) since the 2001 census has not been taken into account in the LGES formula. Population growth in some municipalities over the intervening years has been rapid due to both natural growth and migration. It is important to note that when data is updated to reflect increases in population not all municipalities will receive increased LGES allocations. What is important for the LGES allocations are the *relative* growth, or growth above the national average in the factors that determine LGES allocations (including poverty and access to basic services). Municipalities that have grown, but by less than the national average, will actually have a smaller share of the national population (because they have not grown as fast as the rest of the country) and this low relative growth could result in them receiving a smaller share of the LGES.

The box below shows the full structure of the formula for the basic services component:

$$\begin{aligned} \text{The basic services component} \\ BS = & [\text{Water Subsidy 1} * \text{Poor with Water} + \text{Water Subsidy 2} * \text{Poor without Water}] + \\ & [\text{Sanitation Subsidy 1} * \text{Poor with Sanitation} + \text{Sanitation Subsidy 2} * \text{Poor without Sanitation}] + \\ & [\text{Refuse Subsidy 1} * \text{Poor with Refuse} + \text{Refuse Subsidy 2} * \text{Poor without Refuse}] + \\ & [\text{Electricity Subsidy 1} * \text{Poor with Electricity} + \text{Electricity Subsidy 2} * \text{Poor without Electricity}] + \\ & [\text{Municipal Health Services} * \text{Total number of households}] \end{aligned}$$

Funding provided through the basic services component

Table 6 below shows that of the R33 billion allocated through the basic services component in 2012/13 the largest amount went to the metropolitan municipalities and they received the largest average allocations (note that the figures below are for the basic services allocations before the RRC correction is applied). Metropolitan municipalities get the largest combined allocation from the basic services component, receiving R11.3 billion, or 34 per cent of the funds because they have a large number of poor households, with 1.6 million poor

³ RDP levels of service include the following:

Water: 1) Inside the dwelling, 2) inside the yard, 3) less than 200 meters from the yard

Sanitation: 1) Flush toilets connected to a sewerage system, 2) flush toilet connected to a septic tank, 3) chemical toilets, 4) ventilated improved pit-latrines (VIP), 5) bucket toilets (recognised in the current LGES formula but being eradicated in line with government policy)

Refuse: collected at least once a week

Electricity: electricity for lighting

Local Government Equitable Share Formula Review

households, or 29 per cent of all poor households recorded in the 2001 Census (using the R800 poverty line). The group with the largest number of poor households are the rural municipalities, with 1.9 million in the 2001 Census. While these municipalities appear to get a much smaller allocation from the basic services component than metros, the R5.7 billion allocated directly to these municipalities should be considered together with the R4.9 billion allocated to authorised district municipalities, most of which is allocated for water and sanitation services in rural municipalities. The other reason that metropolitan municipalities get relatively large allocations through the basic services component is that in the 2001 Census data they had a high proportion of poor households receiving services (and hence the municipalities receive the full basic services subsidies) whereas many rural municipalities had low levels of access to services, which meant many poor households in those municipalities had only the partial subsidy allocated against them in this component. In other words the main reasons that rural municipalities do not get larger allocations through the current basic services component are that they are not authorised for all the basic services (in most cases districts are authorised for water and sanitation) and because so many households in their areas do not receive municipal services.

Table 6: Total and average values of the basic services component per type of municipality, 2012/13

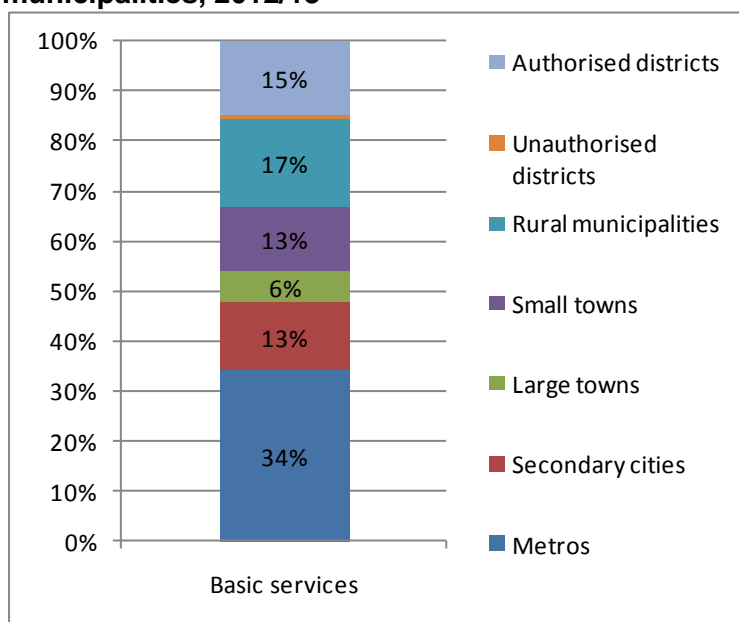
R'000	Total value of basic services component per group of municipalities	Average value of basic services component per type of municipality
Metros	11 381 419	1 422 677
Secondary cities	4 432 777	233 304
Large towns	2 132 001	78 963
Small towns	4 295 309	39 048
Rural municipalities	5 749 963	82 142
Unauthorised districts	314 679	13 682
Authorised districts	4 878 272	232 299
TOTAL	33 184 420	119 368

Note: figures reflect the size of the basic services component prior to the subtraction of the RRC correction

The figure below shows the proportions of the basic services component allocated to different groups of municipalities. Metros receive just over a third of the allocations and poor rural municipalities receive the next largest share, 17 per cent, but most of the water and sanitation funds for these areas are transferred to district municipalities, so most of the 15 per cent of the basic services component allocated to unauthorised districts will also be spent on households in rural municipalities. Unauthorised districts only receive funds for the environmental health function (they don't receive funds for other basic services as they are not authorised to perform those functions). As a result they receive only 1 per cent of funds allocated through the basic services component.

Local Government Equitable Share Formula Review

Figure 1: Proportion of total basic services component allocated to each group of municipalities, 2012/13



How much is allocated for each basic service?

When the equitable share was introduced in 1998/99, the basic services component was based on a cost estimate by the Development Bank of Southern Africa (DBSA) for the cost of providing basic services. In 1998 the subsidy for basic services was introduced at R86 per poor household per month (considerably above the level of the DBSA cost estimate). If this amount grew with inflation each year, then by 2012 the average subsidy to poor households per month should be worth R190. In fact the average subsidy per serviced poor household in the LGES for 2012/13 is more than three times higher at R625. Even the subsidy for households with no services (R281 per month) is higher than the inflation adjusted 1998-estimate for serviced households. This rapid rise in the per household subsidy is largely the result of increases in the total amount allocated to the equitable share, it certainly does not mean that the cost of services has increased three fold in real (inflation adjusted) terms. This means that the amounts allocated for services in the current LGES formula are not likely to be very accurate reflections of the costs of providing those services.

Part of the reason for this is that in the current basic services component the available funds are allocated using a ratio for the costs of different services rather than accurate costing for the services. In this ratio electricity is allocated a value of R45, water, sanitation and refuse are each allocated a value of R30 and municipal health is given a value of R1.50. However, these are not the actual amounts per service allocated in the formula. The actual value of the per household allocations used in the formula are determined by multiplying this ratio by the funds available. The table below shows the actual average allocations per household for each of the basic services over the 2012 medium term expenditure framework (MTEF) period. The actual amounts are more than 4.6 times larger than the amounts used in the ratio. Using this method ensures that all available funds are allocated and that a constant ratio is maintained between the costs of the different services.

Local Government Equitable Share Formula Review

Table 7: Actual average monthly basic services subsidies per poor household

Monthly Rand	Serviced households			Households not connected to services		
	2012/13	2013/14	2014/15	2012/13	2013/14	2014/15
Electricity	208.32	223.23	240.04	93.74	100.45	108.02
Water	138.88	148.82	160.03	62.50	66.97	72.01
Sanitation	138.88	148.82	160.03	62.50	66.97	72.01
Refuse	138.88	148.82	160.03	62.50	66.97	72.01
Total	624.95	669.68	720.12	281.23	301.35	324.05

Comparison of BS allocations to costs

It is often suggested that the local government equitable share does not provide sufficient funds to enable municipalities to provide basic services to their residents. However, a simple calculation shows that, while costs may vary from place to place, the equitable share as a whole contains sufficient funds to enable municipalities to provide free basic services to the poor.

Table 8 (below) shows the allocation in the basic services component of the equitable share and budgeted municipal expenditure for 2011/12 for each basic service (for all residents, not only those receiving free basic services). Considering that wealthier households and businesses will consume more of these services (especially electricity and water) than poor households, it is difficult to imagine that providing free basic services to poor households would cost more than 14 per cent of municipal spending on electricity, 26 per cent of spending on water and especially not more than 59 per cent of spending on sanitation or 81 per cent of spending on refuse. It would appear therefore that there is sufficient funding in the LGES as a whole to cover the costs of free basic services for poor households. This does not however mean that the current formula is correctly targeting these funds to the municipalities that need it, so while there may be enough basic services funds in the formula, it is still possible that there may not be enough in the allocation to some individual municipalities.

Table 8: Budgeted municipal operating expenditure and equitable share allocations per basic service for 2011/12

R million	electricity	water	sanitation	refuse	TOTAL
Indicative budgeted municipal operating expenditure for 2011/12	65 619	25 027	9 451	6 768	106 865
Equitable share funding per service	9 506	6 494	5 593	5 513	27 106
ES funding as percentage of budgeted expenditure	14%	26%	59%	81%	25%

Source: Local Government Budget and Expenditure Review 2011 and Division of Revenue Act 2011

Rough cost estimates for the electricity and water services also show that the per household cost of these services is significantly less than the subsidies provided in the LGES. Electricity prices are regulated by the National Electricity Regulator of South Africa (NERSA) which has set municipal tariffs for electricity for 2012/13 at between 61c/kWh and 129c/kWh at the bottom and top end of the inclining block tariff scale respectively. This means that the free basic electricity amount of 50kWh per poor household per month would cost R30.50 at the bottom tariff and R64.50 at the top tariff. Both these amounts are considerably less than the R208 per poor household per month provided for electricity in the LGES formula.

Water prices are more difficult to estimate as the costs of water vary significantly in different areas, but an examination of proposed water board tariffs for 2012/13 shows that the cost of

Local Government Equitable Share Formula Review

potable bulk water varies between R3.20/kl and R7/kl. Assuming bulk water is only 50 per cent of the cost of municipal water supply to households this would mean water will cost up to R14/kl to deliver to households. Even at this expensive rate the free basic services level of 6kl free water per poor household would cost at most R84 per month, only 60 per cent of the value of the R138.88 per month subsidy provided in the formula.

Even taking into account the fact that population size has grown since 2001 and that the poverty line in the LGES formula is set at a low level, the margins by which the subsidies in the LGES exceed the crude cost estimates above indicate that there is more than sufficient funding in the LGES to fund free basic services to poor households.

It must be noted that in the current LGES formula the subsidy levels to municipalities are not adjusted to take account of the fact that the cost of delivering services is different in different municipalities. Costs can differ for a range of reasons, some of which are beyond the control of a municipality (such as the added expense of having to pump water uphill to reach a town), but the current LGES formula treats all municipalities as though they face the same costs for providing services.

DISCUSSION QUESTIONS:

- Is the measure of poverty used in the basic services component appropriate?
- Have the 'basic services' funded through this component been correctly identified?
- Should services beyond basic services be funded?
- How can the accuracy of costing for basic services be improved?
- Should the same cost assumptions be applied to all municipalities? If not, what are the factors that cause service delivery costs to be higher or lower in different areas?
- How can changes in the factors that drive basic services allocations (population, poverty, access to services etc.) be taken into account in the formula?

3.4 The Institutional Component

This component was substantially altered in the 2011/12 equitable share formula. Previously it had three subcomponents, a small basic component that allocated the same amount to each municipality, an allocation based on the population of each municipality and the largest subcomponent was an allocation based on the number of councillors in each municipality. Because two of these subcomponents are based on the size of a municipality's population (municipalities with larger populations have more councillors) it was a very population driven component, with larger municipalities receiving the largest allocations.

The revised institutional component introduced in 2011/12 was based on two subcomponents: a basic subcomponent that is allocated to all municipalities and a second component that incorporates both municipal size and poverty levels. This second subcomponent is calculated based on the number of councillors in a municipality, but it is then adjusted by a factor reflecting the relative level of poverty in each municipality. The basic subcomponent ensures that small municipalities receive a minimum amount and the second component ensures that larger municipalities get more funds, but that larger municipalities with high poverty levels get more than similar sized municipalities with lower poverty levels. This recognises that municipalities of all sizes have some basic institutional costs but that institutional costs also increase for larger municipalities. Importantly though, the changes in the 2011/12 formula account for the fact that municipalities with high poverty rates will have less ability to fund their institutional costs from own revenues and so will need increased allocations from the equitable share.

Local Government Equitable Share Formula Review

Allocations through the institutional component

Although the institutional component of the formula is much smaller than the basic services component it is still worth more than R2.6 billion in 2012/13 prior to the subtraction of the RRC correction (after the RRC correction is subtracted, the institutional component is still worth more than R2.5 billion). Table 9 below shows the average allocation per type of municipality. This shows that metros get the largest average I-component allocation, followed by secondary cities and rural municipalities that both get more than R12 million per annum. This demonstrates the impact of the inclusion of the poverty element in the calculation of the component, as secondary cities are much larger on average than rural municipalities, (with secondary cities having an average population of 318 000 and 66 councillors, and rural municipalities having an average population of only 179 000 and 41 councillors). In a population-driven I-component this would result in secondary cities receiving substantially larger allocations than rural municipalities, but because the poverty rate in rural municipalities is so high (70 per cent of households) relative to that in the secondary cities (39 per cent of households), and the I-component is now poverty-weighted, these two types of municipalities now receive very similar allocations. It is also worth noting that even the smallest type of municipalities, small town municipalities receive an average of nearly R6 million per annum through this component, almost half the average allocation to secondary cities. This is in large part due to the inclusion of a basic allocation for all municipalities.

Table 9: Total and average values of the institutional component per type of municipality, 2012/13

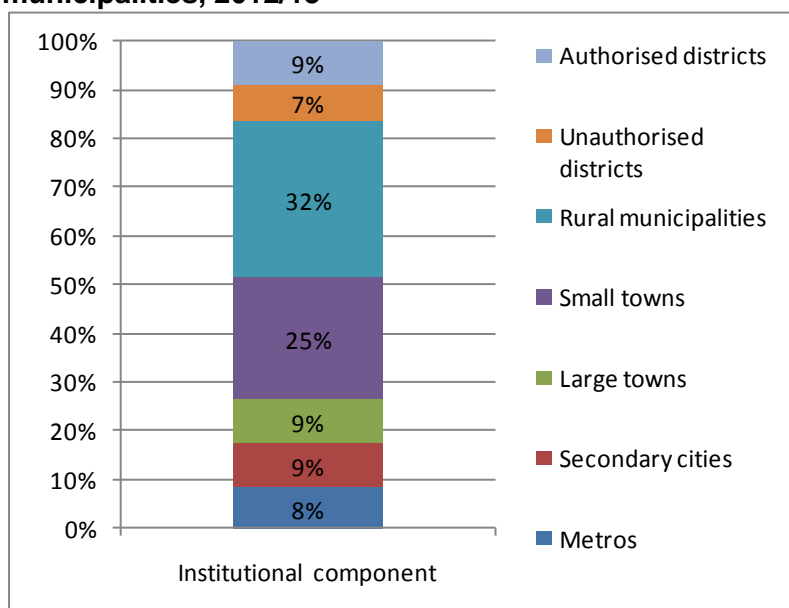
R'000	Total value of institutional component per group of municipalities	Average value of institutional component per type of municipality
Metros	219 753	27 469
Secondary cities	243 374	12 809
Large towns	242 781	8 992
Small towns	652 943	5 936
Rural municipalities	854 409	12 206
Unauthorised districts	196 636	8 549
Authorised districts	236 146	11 245
TOTAL	2 646 042	9 518

Note: figures reflect the size of the institutional component prior to the subtraction of the RRC correction

The figure below shows that of the R2.6 billion allocated through the institutional component, the majority (57 per cent) goes to rural and small town municipalities. Metros receive only 8 per cent of the total value of the I-component, and their I-component allocations are smaller than the amounts subtracted through the RRC component (see subsequent subsection on the RRC). This in effect means that in the current formula metros and other municipalities with substantial own revenues are expected to fund their own administrative costs.

Local Government Equitable Share Formula Review

Figure 2: Proportion of total institutional component allocated to each group of municipalities, 2012/13



It is difficult to compare the I-component allocations to the administrative costs of municipalities for two reasons. First, the institutional component is not intended to fully fund the administrative costs of municipalities as they should be funding their administration from own revenues collected and it is not clear what proportion of their administrative costs should be funded by the LGES, though it is clear this proportion should be higher in municipalities with limited own revenue potential. Second, data on administrative costs is not always clearly separable in municipal budget data as a significant number of municipalities include non administrative costs (such as salaries for service departments) in their administration budgets. It would not be very helpful to make inaccurate guesses at the proportion of administrative costs that the current I-component funds however, several stakeholders have indicated that its current size is likely to be inadequate. This is an area that will need further investigation as part of the LGES review.

DISCUSSION QUESTIONS:

- Are the factors used in determining institutional component allocations (size of municipality, poverty and a basic allocation to all municipalities) the ones that determine the need for equitable share funding to cover institutional costs?
- Is the institutional component the right size?
- Should municipalities with substantial own revenues have their institutional costs subsidized through the LGES?

3.5 The development component

The revised LGES formula introduced in 2005/06 includes a development component that has remained inactive since the formula was introduced.

The development component was included in the formula in 2005 because section 214(2) of the constitution includes “developmental and other needs of provinces, local government and municipalities” as one of the factors that must be considered when the division of revenue is decided upon.

Local Government Equitable Share Formula Review

Although extensive consultation processes were undertaken to try to devise a workable development component, stakeholders could not agree on what the objective of the component should be or how it should be structured. As a result this component has remained dormant. In their Submission for the Division of Revenue 2007/08, the FFC recommended that it is not necessary to include a development component in the formula and that, "The developmental needs of local governments should be better accounted for in the LES formula by designing a formula that more fully accounts for the full expenditure needs of local government."

Development is funded through the local government fiscal framework in several ways including the funding of infrastructure development for poor communities through conditional grants and the funding of infrastructure in wealthy areas and business districts through own revenue sources including borrowing and development charges. The equitable share also funds the provision of basic services which are a necessary foundation for the development of communities, as access to water, sanitation and refuse removal are essential to public health and lighting is vital to participate fully in education activities. In these ways the different aspects of development are already provided for in different aspects of the local government fiscal framework.

DISCUSSION QUESTIONS:

- Should the new LGES formula include a development component?
- If so, what objective should a development component aim to achieve?

3.6 *The revenue raising capacity correction*

The Revenue Raising Capacity (RRC) correction is included in the formula in order to take account of the differing levels to which municipalities can raise their own revenues and use these revenues to fund service provision. Unlike the other components of the formula discussed so far the RRC correction *subtracts* from the LGES allocation to municipalities. It subtracts relatively large amounts from municipalities that can raise substantial own revenues and relatively small amounts from poor municipalities. The net effect of this is that municipalities with substantial revenue bases receive smaller LGES allocations and municipalities with limited own revenue bases receive larger LGES allocations than they would in the absence of the RRC correction.

This component subtracts a percentage of the projected property rates income that a municipality could reasonably be expected to collect, as well as a percentage of the RSC levies replacement grant and fuel levy sharing amounts allocated to district and metropolitan municipalities. The projected property rates income used to calculate this component is based on historic figures for property rates collection for the three years from 2004/05 to 2006/07. The average collection in these years has then been grown by inflation to project what municipalities should be able to collect over the MTEF. This method is not ideal, but not using more recent actual property rates collection figures helps to avoid two problems. First, it eliminates any disincentive for municipalities that think that lower property rates collection would result in a smaller RRC subtraction for their municipality and hence a larger LGES allocation as they cannot change the level they collected in the period 2004/05 to 2006/07. Second, it avoids subtracting revenue actually raised by municipalities, which would violate section 227(2) of the Constitution.

The percentage of projected municipal own revenue potential that is subtracted through the RRC correction differs for municipalities based on their projected own revenue per capita (calculated in a similar manner to the projected property rates). Those with high own revenue per capita have 7.5 per cent of their projected property rates subtracted, while those

Local Government Equitable Share Formula Review

with the lowest own revenue per capita have only 1.5 per cent subtracted. Since 2011/12, the RRC correction rate for municipalities in between these two ends of the spectrum has been calculated using a formula that calculates an individual rate between 1.5 per cent and 7.5 per cent based on that municipality's projected own revenue per capita. In 2009/10 and 2010/11 a stepped taxation structure was used that grouped municipalities into bands and applied a common rate to those in each band. The FFC recommended that this was unfair to municipalities on the outer end of each band and so the smoothed structure that uses a rate calculated individually for each municipality was introduced. Prior to 2009 a common rate was applied to all municipalities however, this and the way municipalities' potential to collect property rates were calculated at that time (using a more complex statistical model) resulted in unreasonably high RRC subtractions from the LGES allocations to poor municipalities. The pre-2009 method also resulted in a high level of volatility in projected revenue raising capacity from year to year. As a result the system was changed to the current, more stable method of calculating the RRC. This demonstrates the dangers of using complex projections based on inadequate data in the formula.

The RRC is applied as a flat rate of 6 per cent on allocations for the RSC levies replacement grant to district municipalities and general fuel levy sharing allocations to metropolitan municipalities. The RRC is applied to these amounts as the RSC levies replacement grant replaces what was the major source of own revenues for districts and the fuel levy sharing is a major source of own revenue for metropolitan municipalities.

Impact of the RRC on allocations

The table below shows the average amount subtracted from each type of municipality through the RRC correction. With an average amount of over R220 million, metropolitan municipalities experience by far the largest impact from this component. Notably, they are the only category of municipalities to have more subtracted through the RRC than they receive through the institutional component (in fact the RRC subtracts 8 times as much as the metros receive through the institutional component). Rural municipalities have only very small amounts subtracted with on average only R78 000 subtracted.

Table 10: Total and average values of the RRC correction per type of municipality, 2012/13

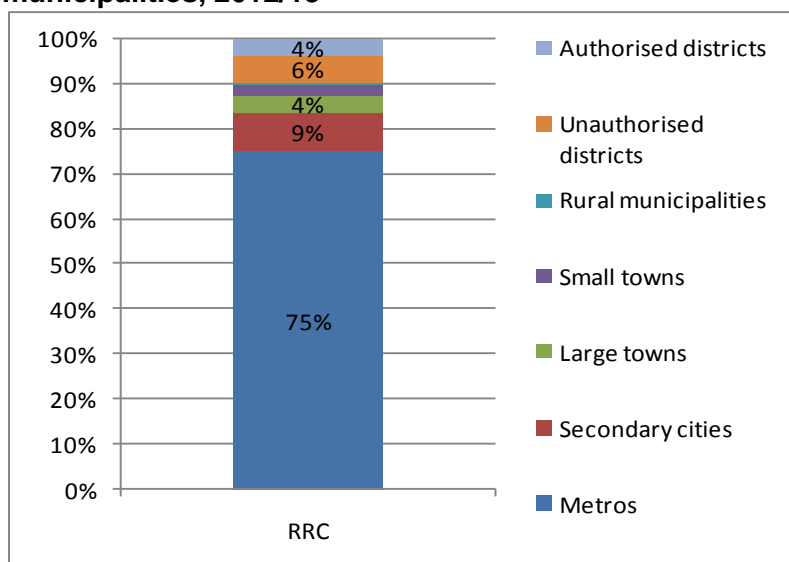
R'000	Total value of RRC correction per group of municipalities	Average value of RRC correction per type of municipality
Metros	-1 763 778	-220 472
Secondary cities	-199 879	-10 520
Large towns	-91 798	-3 400
Small towns	-62 651	-570
Rural municipalities	-5 479	-78
Unauthorised districts	-138 513	-6 022
Authorised districts	-85 462	-4 070
TOTAL	-2 347 559	-8 444

The figure below clearly demonstrates the disproportionate impact of the RRC correction on metropolitan municipalities who account for 75 per cent of all funds subtracted through the component. This is because metropolitan municipalities are estimated to have very significant property rates bases as well as receiving substantial allocations from the fuel levy sharing. Secondary cities also have substantial own revenue bases and account for 9 per

Local Government Equitable Share Formula Review

cent of the RRC. District municipalities have the RRC applied to the RSC levies replacement grant and this accounts for 10 per cent of the value of the RRC. The RRC on rural and small town municipalities is too small to have data labels in the figure below, small town municipalities account for 3 per cent of the RRC and rural municipalities for just 0.2 per cent.

Figure 3: Proportion of total RRC correction subtracted from each group of municipalities, 2012/13



The RRC correction provides a way of taking account of the differing abilities of municipalities to raise their own revenues. As such it makes a major contribution to enhancing the differentiation in the way the formula treats different municipalities. The allocations to municipalities with substantial own revenue raising abilities are reduced and the allocations to municipalities with limited own revenue potential are increased as a result.

However, by subtracting from the components already described above, the way the RRC correction is structured significantly increases the complexity of the formula and makes its workings much harder to understand and interact with. This in effect reduces the transparency of the formula.

DISCUSSION QUESTIONS:

- Should the new LGES formula take account of the differing abilities of municipalities to raise their own revenue?
- If the LGES should account for revenue raising capacity, what is the most appropriate mechanism to use to do this?

3.7 Stabilization component

The stabilisation component is used as a mechanism to ensure that guarantees on the indicative allocations for municipalities are met. This ensures that any changes in LGES allocations, particularly reductions in allocations, are phased in so that municipalities have time to plan for their impact. Currently, the guarantee mechanism applied in the formula is structured so that allocations in first year of the 3-year budgeted MTEF period are guaranteed 100 per cent, allocations for the second year are guaranteed at a level of 90 per cent and no guarantee is made on the allocations for the third year. In the 2012 Budget this means that allocations for 2012/13 are 100 per cent guaranteed, allocations for 2013/14 are 90 per cent guaranteed and there is no guarantee on the indicative amounts published for 2014/15. This is particularly important to note in the context of the revised formula that will

Local Government Equitable Share Formula Review

be introduced in 2013/14 as it means that all municipalities will receive at least 90 per cent of the indicative amount for 2013/14 LGES formula allocations that was published in the 2012 division of revenue.

Guarantees are provided as a way of giving stability and predictability to the system of LGES transfers so that municipalities can plan their future budgets with greater certainty as to the value of their future LGES transfers. The stabilisation component can however also result in delays in the impact of changes in the formula, with increases and losses due to changes in the formula being moderated due to the need to meet the costs of funding the guarantees.

Where guarantees need to be met, the funds to increase a municipality's allocation to meet the guarantee are subtracted proportionately from the allocations to all other municipalities. This means that larger amounts are subtracted from municipalities with larger LGES allocations, but funds are taken from all municipalities to meet the costs of maintaining the LGES guarantees. The impact of these reductions on any one municipality is very small, with the average impact on metros in 2012/13 amounting to only 0.03 per cent of their average allocation.

DISCUSSION QUESTION:

- Is it important to have a guarantee mechanism in the formula and is the current stabilisation mechanism an appropriate way to structure this mechanism?

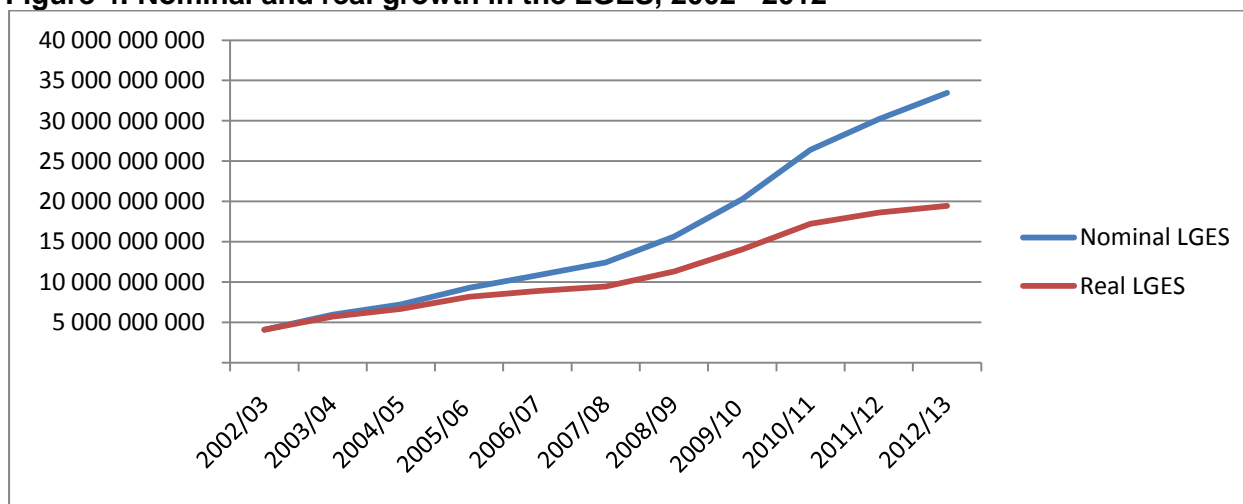
The final allocation to each municipality is decided by adding their allocations through the basic services and institutional components, then multiplying these by the adjustment factor that makes sure all of the available funds are utilised. The RRC correction is then subtracted and the stabilisation factor is applied, giving the final LGES formula allocation for each municipality.

5. ANALYSIS OF LGES ALLOCATIONS

5.1 Growth and Distribution of the LGES 2002 - 2012

The LGES has been growing at a substantial pace from 2002 to 2012, even during the global economic crisis in 2008. Figure 4 illustrates the nominal and real growth in the LGES over the 10 year period.

Figure 4: Nominal and real growth in the LGES, 2002 - 2012



CPIX was used to compute real values using 2002 as the base year

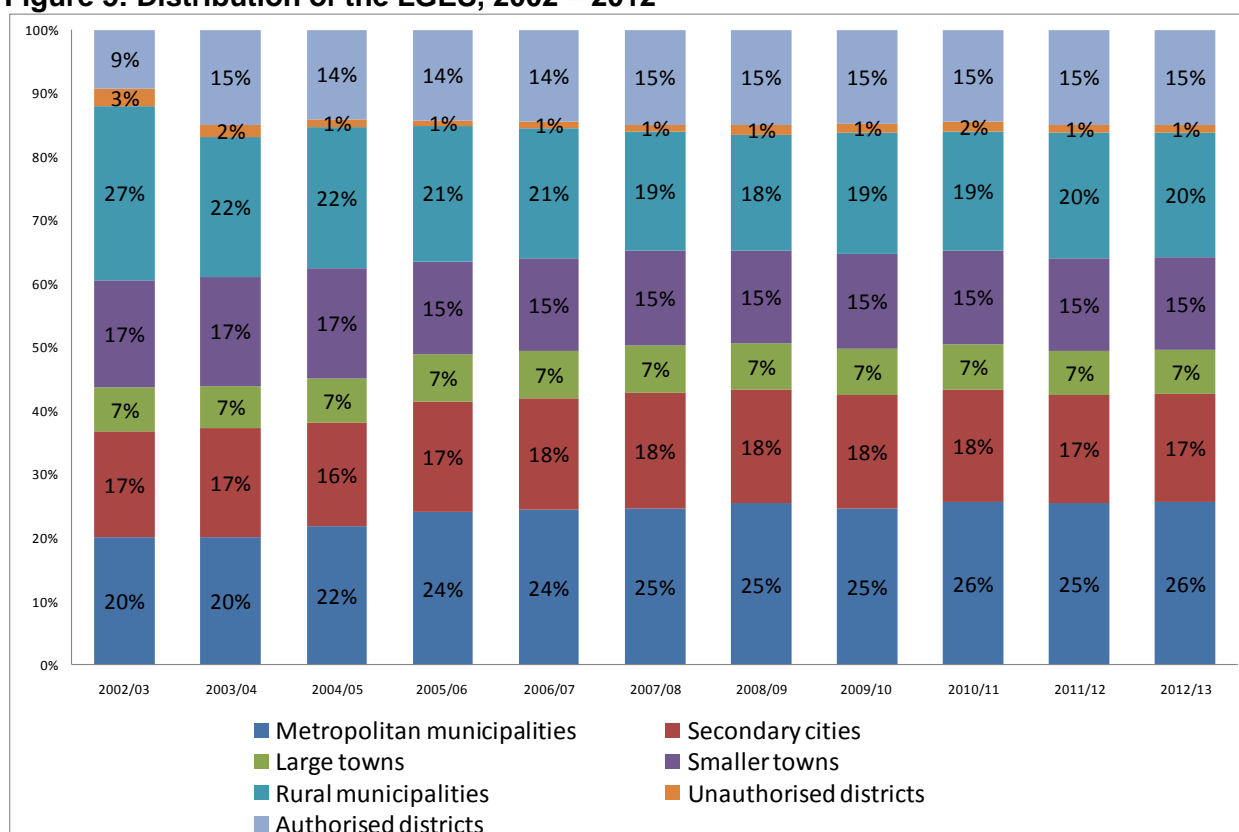
Local Government Equitable Share Formula Review

Figure 4 confirms the considerable increases in the LGES over the period, growing to four times its 2002/03 value in real terms (inflation adjusted) by 2012/13. Such trends reflect the growing support provided by national government for the provision of basic services to poor households.

5.2 Comparing the LGES allocations to different groups of municipalities

Although the overall growth in the LGES has been considerable and responsive to the growing expenditure demands being placed on local government as a sphere, the LGES is also intended to respond to the funding needs and fiscal disparities across the various types of municipalities. Figure 5 illustrates the relative shares of the LGES for different groups of municipalities over the same 10 year period.

Figure 5: Distribution of the LGES, 2002 – 2012



It is important to note that this analysis is largely for descriptive purposes and cannot determine whether funding is sufficient for the different types of municipalities. The trends depicted in figure 5 need to be analysed in light of the several policy and structural changes to the LGES formula and to the local government system over the period.

In 2002/03, rural municipalities received most of the funding from the LGES, around 27 per cent. Metropolitan municipalities received 20 per cent of the LGES while secondary cities and smaller towns both received 17 per cent of the LGES. Over the period, the share allocated to metros gradually increased relative to that of rural municipalities. The shares of the other municipalities have remained relatively constant over the period (i.e. secondary cities around 17-18 per cent, large towns at 7 per cent, and smaller towns around 15-17 per cent). Following an initial jump in the allocations of district municipalities with powers and functions in 2003/04 (from 9 per cent to 15 per cent of the LGES), the allocations to these municipalities has also remained constant over the period.

Local Government Equitable Share Formula Review

The trends above can be explained by various factors and changes that occurred over the course of the period under review. Firstly, following changes to the functional framework and realignment between expenditure responsibilities between category B and C municipalities, rural municipalities' share of the LGES decreased to 22 per cent in 2003/04 (from 27 per cent in 2002/03). This was mirrored by an increase in the share of district municipalities authorized for major powers and functions from 9 per cent in 2002/03 to 15 per cent in 2003/04. This reflects the decision to allocate water and sanitation functions to district rather than local municipalities in these areas and the consequent shift in funds. The introduction of the current formula in 2005/06 and the subsequent introduction of the municipal health services function into the LGES (allocated to metros and district municipalities) may have also contributed to a gradual decline in the share of the LGES for rural municipalities. Ultimately, the increased shifting of expenditure functions to metros and districts resulted in additional funds accruing to these municipalities. The increasing share to the metros is also the result of the updating of the formula's fundamental data from the 1996 census to the 2001 census. This change (made in 2004/05) captured urbanisation trends and the resulting increase in the population of urban municipalities.

The gradual increase in the metros share of the LGES subsided in 2009/10 with the introduction of the differentiated tax system in the RRC component. The share of rural municipalities also increased slightly as a result. This change attempted to improve the redistribution of LGES funds and better recognise the greater fiscal capacity of metros to cross-subsidise their expenditure responsibilities.

Although an attempt was made in the above analysis to link distinct changes in the relative shares of the LGES between the various groups of municipalities to specific policy amendments, the guarantee mechanism that was part of both formulae results in the impact of changes to the formula being felt gradually in the system. For example, the gradual increase in the metros share is likely the result of a policy change in one year that is phased in over several years in the formula (for example the introduction of the municipal health component in 2007/08). The guarantee mechanism protects the LGES from large shocks or sudden changes in the level of allocations. The same will be true of the changes as a result of the current LGES formula review process, the new allocations will have to be phased in subject to guarantees on the current allocations for the 2012 medium term expenditure framework.

5.3 Comparing allocations on a per poor household basis, assuming the same functions were allocated to all municipalities

Examining the total amount allocated to different types of municipalities doesn't always tell us the full story of the impact of changes to the formula as the different municipalities are so different in size and possibly even more importantly in the functions they are authorised to provide. As has been noted above, most of the water and sanitation funds for rural local municipalities are allocated to district municipalities, making it difficult to compare allocations between rural and urban local municipalities as they are being funded for different things. In the analysis in this subsection therefore we have recalculated the LGES allocations for all municipalities from 2007/08 (the first year where the current LGES formula was fully phased in) to 2012/13 as though all local municipalities are authorised for all functions. The effect of this is that in the tables below the amounts reflected for rural municipalities include all of the LGES funds allocated to be spent on households in those areas, irrespective of whether the funds are transferred to the district or local municipality responsible for serving those households.

In this subsection allocations are compared on a per poor household basis, meaning that the allocation to each municipality is divided by the number of poor households in that municipality (defined at the R800 per month poverty line in the 2001 Census data). This

Local Government Equitable Share Formula Review

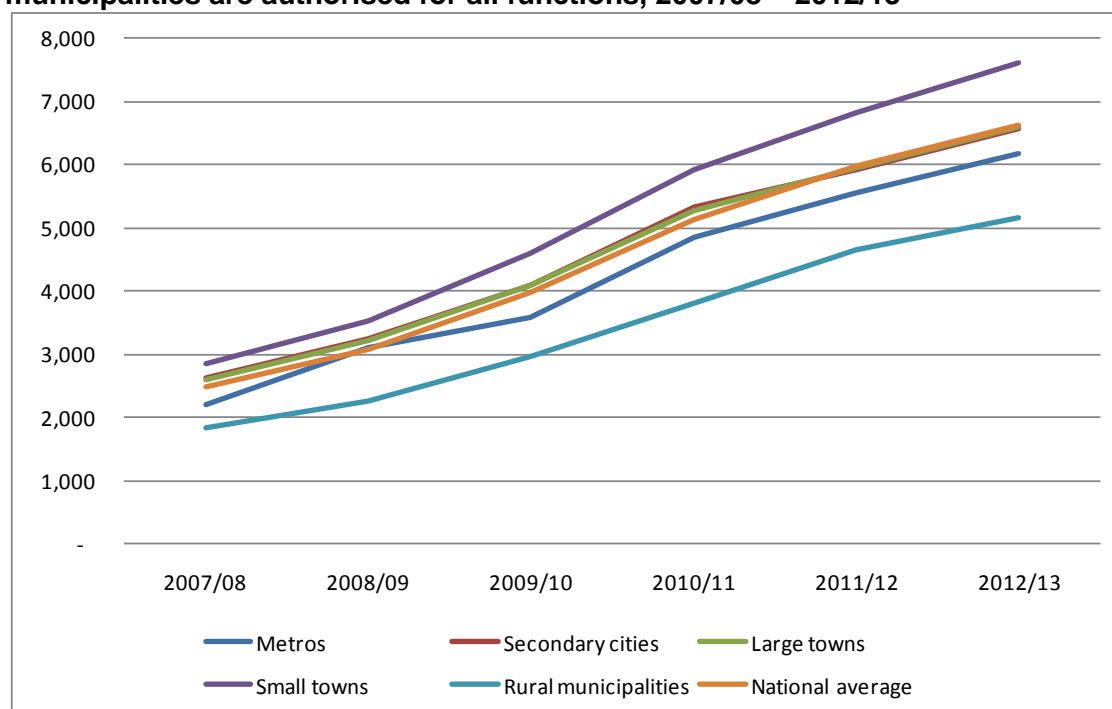
method is used as most of the funds in the LGES formula are allocated to subsidise the costs of providing services to poor households (especially through the basic services component). This allows us to compare LGES allocations in a way that accounts for the very different population sizes of municipalities.

In the table and graph below (both displaying the same data), we can see how dramatically the LGES has grown on a per poor household basis, from a national average of R2 489 per poor household in 2007/08 to R6 639 in 2012/13. We can also see that growth has been consistent across all types of municipalities. Small towns consistently have the highest per poor household allocation. This is due to a relatively high proportion of their poor households having access to services (and hence receiving the full allocation through the basic services component) as well as the constant subcomponent in the institutional component that guarantees small municipalities get a minimum allocation. Rural municipalities consistently get the lowest per poor household allocation, largely as a result of the low levels of access to services in these municipalities that results in them receiving only the lower basic services subsidy for un-serviced households for most of their poor households.

Table 11: LGES allocation per poor household calculated assuming local municipalities are authorised for all functions, 2007/08 – 2012/13

Rands	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Metros	2 196	3 109	3 587	4 861	5 542	6 180
Secondary cities	2 620	3 241	4 102	5 338	5 921	6 566
Large towns	2 605	3 222	4 089	5 261	5 955	6 604
Small towns	2 860	3 520	4 605	5 910	6 819	7 619
Rural municipalities	1 839	2 259	2 966	3 818	4 666	5 173
National average	2 489	3 076	3 988	5 136	5 966	6 639

Figure 6: LGES allocation per poor household calculated assuming local municipalities are authorised for all functions, 2007/08 – 2012/13



Local Government Equitable Share Formula Review

The tables below show the year-on-year growth in average per poor household allocations for each group of municipalities (table 12) and the size of each group's per poor household allocation relative to the national average (table 13). In table 13, metros in 2012/13 get slightly less than the national average (93 per cent of the national average), while allocations to secondary cities and large towns are in line with the national average (both 99 per cent), small towns get significantly above the national average (115 per cent) and rural municipalities (78 per cent) receive significantly less than the national average allocation per poor household. The impact of the changes to the formula in 2009 and 2011 can clearly be seen in these tables. In 2008/09 metro allocations were growing very rapidly (at 42 per cent they grow almost twice as fast as allocations to other municipalities in this year). In 2009 however, the calculation of the RRC correction was changed and as a result growth in metro allocations slowed to below that of other municipalities and their average per poor household allocation fell back below the national average in 2009/10. In 2011/12 we can see the impact of the changes made to incorporate a poverty factor in the institutional component and increase the level of the subsidy for un-serviced households in the basic services component. These changes resulted in the per poor household allocations for rural municipalities increasing from 74 per cent of the national average to 78 per cent.

Table 12: Annual growth in per poor household LGES allocations calculated assuming local municipalities are authorised for all functions, 2008/09 – 2012/13

Rands	2008/09	2009/10	2010/11	2011/12	2012/13
Metros	42%	15%	36%	14%	12%
Secondary cities	24%	27%	30%	11%	11%
Large towns	24%	27%	29%	13%	11%
Small towns	23%	31%	28%	15%	12%
Rural municipalities	23%	31%	29%	22%	11%
National average	24%	30%	29%	16%	11%

Table 13: Municipal per poor household LGES allocations relative to the national average per poor household allocation (calculated assuming local municipalities are authorised for all functions), 2007/08 – 2012/13

Rands	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Metros	88%	101%	90%	95%	93%	93%
Secondary cities	105%	105%	103%	104%	99%	99%
Large towns	105%	105%	103%	102%	100%	99%
Small towns	115%	114%	115%	115%	114%	115%
Rural municipalities	74%	73%	74%	74%	78%	78%
National average	100%	100%	100%	100%	100%	100%

6. SUMMARY OF THE PROBLEMS AREAS IN THE CURRENT LGES FORMULA

The working group tasked with reviewing the LGES formula has identified the following list of the major strengths and weaknesses of the LGES formula. The list is only intended to highlight the most important strengths and weaknesses and is not intended to be an exhaustive list, nor does it attempt to describe or analyse the strengths and weaknesses identified (analysis is provided in the preceding sections of this paper). The list is divided into three groups: first strengths listed with corresponding weaknesses, second are strengths of the formula without corresponding weaknesses and third are weaknesses without any corresponding strengths.

Local Government Equitable Share Formula Review

Group 1: Strengths and weaknesses of the current LGES formula which are in direct contrast with one another

Strengths of the Current Formula	Weaknesses of the Current Formula
1. Provides for major basic services	1. Covers only major basic services
2. Makes provision for institutional costs of municipalities	2. Institutional component incorrectly targeted/ Inadequate institutional component funding
3. It provides for some cross subsidization in wealthy municipalities through the inclusion of the RRC correction	3. RRC in current formula does not properly measure fiscal capacity as it is based on past actual revenue data
4. Takes into account poverty disparities	4. Narrow definition of poverty used
5. Largely based on official data/statistics	5. Unrealistic expectation that data could be updated regularly
6. Maintenance costs included in the funding of basic services	6. Maintenance costs not understood to be part of basic services funding/ not explicitly funded
7. Development funded through LGES and other grants and own revenues	7. Development component has remained dormant

Group 2: Strengths of current LGES formula that do not have corresponding weaknesses

Strengths not in direct contrast with other weaknesses of the current LGES formula	<ul style="list-style-type: none"> • Funding follows the formally assigned functions • Treats similar municipalities the same way • Formula based, therefore cannot be manipulated • Provides high level of stability and predictability (three year indicative allocations with 100% guarantee for year one and 90% for year two) • Includes basic services provided through both connector and non-connector delivery mechanisms (e.g. VIP sanitation)
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Group 3: Weaknesses of the current LGES formula without any corresponding strengths

Other weaknesses not in direct contrast with other strengths of the current LGES formula	<ul style="list-style-type: none"> • Current LGES formula does not capture service delivery progress between censuses • Strongly population biased • Not very transparent/difficult to understand allocation mechanism • No proper costing of basic services • Lack of differentiation in costing • Functional structure ineffective, majority of the value of allocations determined through the adjustment factor
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Local Government Equitable Share Formula Review

7. WAY FORWARD

The LGES formula review is a consultative process and this discussion document, together with the discussion document proposing draft principles and objectives for the revised LGES formula are intended to stimulate discussion, debate and proposals from stakeholders. Stakeholders are therefore invited to make written comments on these documents as part of the LGES formula review. All written inputs must be sent to LGESreview@treasury.gov.za by **15 June 2012**. Due to the tight deadlines of the review process no late submissions will be considered.

As the analysis in this document illustrates, the equitable share review team are already aware of many of the problems with the current formula, but inputs on how stakeholders feel these could be addressed will be very welcome. Inputs can take the form of responses to some or all of the questions posed in this document or comments on the proposed principles and objectives or any other form stakeholders choose.

In addition to the opportunity to provide written comments, groups of municipalities representing all types of municipalities will be invited to participate in focus groups on the LGES formula review. This process will take place in parallel with the opportunity to make written inputs to the review.

After considering all of the inputs received, draft proposals on the structure of the revised formula will be circulated for further consultation by the end of August 2012.