

An Equitable Allocation of the Constituency Development Fund

Based on the ZIPAR Working Paper "The Resource Allocation model for the Constituency Development Fund"

by Frank Kakungu

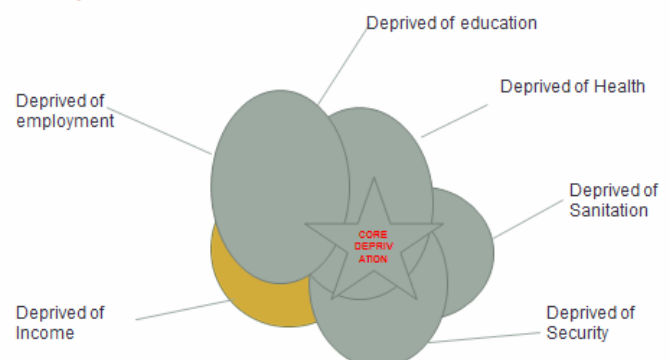
The disbursement of an equal quantum of funding per constituency has equity concerns because constituencies are not equal. This favours smaller, least populated constituencies against greatly populated and or the poorest – where needs are greatest. The blanket allocation of Constituency Development Fund (CDFs) across the country, without recourse to policy targets underscores national failure to address important policy concerns. This is unfortunately the case in Zambia. In this report, we devised a model that reallocates resources based on the socio-economic conditions prevailing in constituencies. The research developed a composite index of material and social deprivation using data from the Census 2010. Furthermore, the study evaluates the distribution of deprivation in constituencies and considers ways in which deprivation index can contribute to discussions relating to public resource allocation of the CDF. The research results has potential usages beyond the CDF reallocation, it informs decision-makers on resource allocation and planning and budgeting activities.

The CDF has been described as a 'one-size-fits-all' programme. The Government disburses equal lump-sums to all the 150 constituencies every year. These disbursements do not take into account the differences that exist among constituencies. Constituencies differ in terms of size, population as well as in terms of the nature and magnitude of desires and developmental problems in different localities. There are concerns, for example, that urban constituencies were better placed, in terms of developmental opportunities, because of the presence of lucrative economic activities, and that the CDF is more beneficial to smaller rather than larger constituencies. It is acknowledged that in some cases a larger constituency may not necessarily be densely populated compared to a smaller one, a situation which may support the allocation of more resources to the densely populated constituencies. The disbursement of the CDF is therefore inequitable. Studies that have been done on the CDF in Zambia have identified this weakness and have recommended for the introduction of a formula to guide allocation of CDF.

In this light, the primary consideration for allocating the CDF should be on constituencies suffering from multiple deprivations. That is, the lacking in the goods and services that enable people lead an adequate life. This means that a distinction should be made between individuals who do not have and those who have these goods and services.

Using the 2010 Census data the study identified socio-demographic variables that have the greatest influence on wellbeing in the Zambian constituencies. These include but not limited to lack of access to piped water and toilets, traditional dwelling whose material

What are some of dimensions of deprivation?



for walls, roofs and floor are not solid, lack of access to electricity, solar power, gas or bio fuel, among others. Using statistical methods, these factors are assigned a weight which reflects their relative importance. Weighted deprivations are then counted in each constituency to identify the level of the socio-economic conditions in the constituency. This is done using a deprivation index formula that takes into account the number of deprivations and their weights.

The highest levels of deprivation based on the identified variables are experienced in the Sinkongo, Luapula, Lukulu-West, Sinjembela and Zambezi-West constituencies located in the Western, Luapula, North-Western, Muchinga and Northern provinces while the richest constituencies are Kabwata, Lusaka Central, Nkana, Kantanshi and Roan located in Lusaka and Copperbelt provinces respectively. The analysis shows that deprivation is skewed to rural dominated constituencies. To equalize development across the country there is need for policy intervention to re-allocate more resources in these needy areas. Further analysis shows that 25 percent of constituency's population are least deprived, while 60 percent are the most deprived.

| 30 most well-off constituencies | | 30 worse-off constituencies | |
|---------------------------------|------------------|-----------------------------|----------------|
| 1 | Kabwata | 1 | Sikongo |
| 2 | Lusaka Central | 2 | Luapula |
| 3 | Nkana | 3 | Iukulu west |
| 4 | Munali | 4 | Sinjembela |
| 5 | Kantanshi | 5 | Zambezi West |
| 6 | Matero | 6 | Liuwa |
| 7 | Roan | 7 | Chimbamilonga |
| 8 | Kabushi | 8 | Chilubi |
| 9 | Wusakile | 9 | Chavuma |
| 10 | Nchanga | 10 | Mangango |
| 11 | Chifubu | 11 | Chienge |
| 12 | Mandevu | 12 | Luampa |
| 13 | Livingstone | 13 | Kalabo Central |
| 14 | Kanyama | 14 | Nalolo |
| 15 | Chawama | 15 | Kaputa |
| 16 | Kwacha | 16 | Chama South |
| 17 | Kabwe Central | 17 | Nalikwanda |
| 18 | Bwana Mkubwa | 18 | Kabompo East |
| 19 | Chililabombwe | 19 | Mulobezi |
| 20 | Kamfinsa | 20 | Kanchibiya |
| 21 | Mazabuka Central | 21 | Chembe |
| 22 | Chimwemwe | 22 | Ikelenge |
| 23 | Kankoyo | 23 | Mwinilunga |
| 24 | Luanshya | 24 | Malole |
| 25 | Chilanga | 25 | Chifunabuli |
| 26 | Chingola | 26 | Lukulu east |
| 27 | Ndola | 27 | Lupososhi |
| 28 | Kalulushi | 28 | Mfuwe |
| 29 | Mufurila | 29 | Mafinga |
| 30 | Kafue | 30 | Chama North |

How should Government ensure equitable development?

The model uses the aforementioned variable to derive a deprivation index score for each constituency. The deprivation index scores can be used in considering the allocation of public resources between constituencies. In Zambia where disparities in the distribution of income, in socio-economic status and in access to key social services are substantial, prioritising human development benefits for the most disadvantaged through the differential allocation of government resources could be argued to be an appropriate approach.

There are two key ways in which the deprivation index can be used to inform resource allocation patterns, the first one being inclusion of the index in a resource allocation formula developed. The second way in which the deprivation index can be used to inform resource allocation is to simply use it to guide marginal resource allocation, rather than incorporating it in a formula.

Applying this formula to the total amount of CDF yields the computations in Scenario 1, with the richest constituency Kabwata allocated K2, 779 while the most deprived constituency, Sikongo allocated K947, 629. The highest amount is allocated to Kapiri Mposhi constituency although it is not the most deprived because the formula takes into account the deprivation status and the population of the constituency. The ranking on the allocation scenarios is in terms of lowest to highest amount based on the population weighted deprivation. We recommend two modes of reallocation. The CDF can be reallocated based on the formula (scenario 1) or reallocated with each constituency getting a minimum amount of K1 million, and then the additional amount of K60 million provided in the 2014 National budget allocated using the model (Scenario 2).

Scenario 1

| Constituency | Reallocation | Constituency | Reallocation | Constituency | Reallocation | Constituency | Reallocation | Constituency | Reallocation |
|------------------|--------------|--------------|--------------|----------------|--------------|-----------------|--------------|----------------|--------------|
| Kabwata | 2,779.44 | Kwacha | 550,742.86 | Lubansenshi | 817,905.04 | Isoka | 1,075,258.51 | Sinazongwe | 1,390,195.83 |
| Lusaka Central | 85,328.54 | Mulobezi | 551,694.56 | Mongu Central | 827,207.84 | Kasempa | 1,080,707.38 | Kanyama | 1,404,424.69 |
| Kantanshi | 140,181.63 | Ikkelenge | 584,164.78 | Kafue | 834,770.00 | Mangango | 1,091,808.21 | Bahati | 1,420,745.68 |
| Nkana | 143,785.98 | Solwezi East | 589,639.03 | Luena | 839,305.12 | Mumbwa | 1,109,200.29 | Chifunabuli | 1,462,069.32 |
| Roan | 167,975.30 | Chilanga | 600,967.32 | Masaiti | 843,002.12 | Luangeni | 1,112,939.95 | Kanchibiya | 1,480,508.04 |
| Kankoyo | 245,288.24 | Chimwemwe | 619,913.23 | Katuba | 847,115.89 | Mapatizya | 1,114,561.00 | Kasenengwa | 1,484,592.69 |
| Nchanga | 267,620.50 | Mporokoso | 624,718.31 | Kabompo East | 871,812.42 | Mpika | 1,135,197.48 | Bangweulu | 1,517,619.27 |
| Kabushi | 275,728.48 | Mwembeshi | 630,254.30 | Muchinga | 884,914.01 | Mafinga | 1,140,941.90 | Chilubi | 1,528,457.68 |
| Wusakile | 290,203.48 | Bwacha | 633,975.42 | Magoye | 885,076.53 | Lukashya | 1,153,278.42 | Namwala | 1,569,244.68 |
| Chifubu | 328,996.37 | Kalulushi | 634,809.14 | Ndola | 887,249.14 | Siavonga | 1,159,172.21 | Senga Hill | 1,589,758.23 |
| Feira | 332,967.43 | Sesheke | 643,427.47 | Pemba | 917,275.06 | Chongwe | 1,169,866.78 | Keembe | 1,596,683.97 |
| Mufurila | 394,658.40 | Kawambwa | 653,809.05 | Chama South | 921,082.38 | Senanga | 1,177,994.64 | Lumezi | 1,600,676.46 |
| Mambilima | 399,488.08 | Kafulafuta | 656,485.71 | Chama North | 921,154.74 | Solwezi Central | 1,178,986.96 | Nakonde | 1,609,882.06 |
| Mkushi South | 404,353.51 | Chavuma | 657,944.73 | Chadiza | 925,605.23 | Choma | 1,180,149.67 | Katombola | 1,634,808.86 |
| Mwandi | 407,339.07 | Chikankanta | 664,597.60 | Chimbamilonga | 930,174.91 | Nangoma | 1,186,787.38 | Mpulungu | 1,649,931.46 |
| Moomba | 409,488.46 | Pambashe | 696,793.74 | Mufumbwe | 941,852.31 | Lupososhi | 1,207,578.72 | Mkushi North | 1,687,521.88 |
| Zambezi West | 425,896.92 | Nalikwanda | 727,392.06 | Serenje | 946,868.06 | Lufwanyama | 1,209,029.63 | Msanzala | 1,694,556.14 |
| Kamfinsa | 431,268.63 | Matero | 732,941.05 | Sikongo | 947,629.69 | Dundumwezi | 1,225,817.83 | Chasefu | 1,696,527.98 |
| Chililabombwe | 435,864.34 | Mwansabombwe | 735,648.84 | Mwense | 951,357.20 | Mandevu | 1,247,797.10 | Mbala | 1,742,921.59 |
| Mfuwe | 466,456.27 | Kabompo West | 736,688.85 | Mambwe | 976,366.72 | Kaoma central | 1,254,120.65 | Kasama Central | 1,766,156.91 |
| Munali | 481,805.63 | Rufunsa | 741,831.75 | Lunte | 990,809.12 | Chipata Central | 1,254,890.42 | Mansa | 1,811,749.48 |
| Luapula | 482,091.84 | Chingola | 751,591.07 | Shiwangandu | 996,246.19 | Chisamba | 1,283,711.62 | Sinjembela | 1,829,871.86 |
| Kabwe Central | 495,251.13 | Vubwi | 763,173.54 | Zambezi East | 1,004,798.88 | Mkaika | 1,287,028.99 | Mwinilunga | 1,831,349.03 |
| Livingstone | 500,297.79 | Chawama | 766,544.21 | Lukulu east | 1,020,001.94 | Sinda | 1,290,906.96 | Lundazi | 1,944,167.60 |
| Bwana Mkubwa | 507,448.05 | Chembe | 774,494.47 | Milanzi | 1,022,079.26 | Kaputa | 1,302,600.32 | Kapoche | 1,985,818.81 |
| Liuwa | 510,176.33 | Mbabala | 790,103.68 | Itezhi Tezhi | 1,024,233.13 | Nyimba | 1,312,467.00 | Chipangali | 1,992,744.29 |
| Mazabuka Central | 522,324.91 | Chitambo | 811,647.99 | Monze Central | 1,024,692.83 | Solwezi West | 1,321,946.52 | Chienge | 2,132,756.73 |
| lukulu west | 548,704.81 | Gwembe | 812,473.80 | Nalolo | 1,027,257.89 | Kalomo Central | 1,365,726.47 | Nchelenge | 2,522,541.20 |
| Luanshya | 548,971.08 | Bweengwa | 814,821.51 | Kalabo Central | 1,057,917.81 | Mpongwe | 1,367,515.98 | Malole | 2,651,406.43 |
| Chipili | 550,178.29 | Luampa | 816,961.63 | Petauke | 1,059,061.58 | Chinsali | 1,374,339.18 | Kapiri Mposhi | 3,279,989.32 |

| Constituency | Re-allocated amount | Constituency | Re-allocated amount | Constituency | Re-allocated amount | Constituency | Re-allocated amount | Constituency | Re-allocated amount |
|------------------|---------------------|--------------|---------------------|----------------|---------------------|-----------------|---------------------|----------------|---------------------|
| Kabwata | 1,012,156.57 | Chipili | 1,220,968.32 | Luampa | 1,328,402.33 | Isoka | 1,431,315.91 | Chinsali | 1,551,636.26 |
| Lusaka Central | 1,027,181.69 | Mulobezi | 1,221,714.77 | Mongu Central | 1,329,709.69 | Kasempa | 1,433,688.04 | Sinazongwe | 1,557,121.86 |
| Nkana | 1,053,031.86 | Ikelenge | 1,234,723.21 | Kafue | 1,330,776.72 | Mangango | 1,438,895.68 | Bahati | 1,570,111.92 |
| Kantanshi | 1,053,259.28 | Solwezi East | 1,236,720.01 | Luena | 1,337,023.22 | Mumbwa | 1,444,030.59 | Chifunabuli | 1,587,414.10 |
| Roan | 1,064,451.30 | Chilanga | 1,236,844.42 | Masaiti | 1,337,886.24 | Luangeni | 1,446,386.30 | Kanchibiya | 1,594,963.74 |
| Kankoyo | 1,096,570.42 | Chimwemwe | 1,243,873.61 | Katuba | 1,338,382.29 | Mapatizya | 1,447,394.44 | Kasenengwa | 1,595,609.43 |
| Nchanga | 1,102,839.23 | Mporokoso | 1,250,651.15 | Kabompo East | 1,350,365.36 | Mpika | 1,454,207.38 | Bangweulu | 1,609,411.86 |
| Kabushi | 1,105,831.56 | Kalulushi | 1,250,985.05 | Ndola | 1,350,790.75 | Mafinga | 1,458,335.84 | Chilubi | 1,614,458.46 |
| Wusakile | 1,111,495.14 | Bwacha | 1,251,701.11 | Magoye | 1,354,281.47 | Lukashya | 1,462,971.90 | Namwala | 1,629,624.79 |
| Chifubu | 1,127,123.95 | Mwembezi | 1,252,145.14 | Muchinga | 1,355,340.67 | Siavonga | 1,464,192.11 | Senga Hill | 1,638,603.20 |
| Feira | 1,133,439.08 | Sesheke | 1,258,055.38 | Pemba | 1,367,589.81 | Chongwe | 1,465,295.24 | Keembe | 1,639,649.43 |
| Mufurila | 1,156,109.42 | Kawambwa | 1,262,032.07 | Chama North | 1,370,040.30 | Solwezi Central | 1,469,547.12 | Lumezi | 1,642,945.29 |
| Mambilima | 1,160,308.36 | Kafulafuta | 1,263,398.15 | Chama South | 1,370,183.81 | Choma | 1,470,638.22 | Nakonde | 1,645,032.63 |
| Mkushi South | 1,162,298.52 | Chavuma | 1,264,497.51 | Chadiza | 1,371,247.87 | Senanga | 1,473,041.80 | Katombola | 1,656,084.89 |
| Mwandi | 1,163,540.05 | Chikankanta | 1,265,621.09 | Chimbamilonga | 1,373,992.94 | Nangoma | 1,475,740.91 | Mpulungu | 1,662,636.45 |
| Moomba | 1,164,095.09 | Matero | 1,279,228.35 | Mufumbwe | 1,378,130.12 | Mandevu | 1,483,126.49 | Mkushi North | 1,675,918.90 |
| Kamfinsa | 1,169,331.86 | Pambashe | 1,279,830.40 | Serenje | 1,379,760.37 | Lupososhi | 1,485,134.41 | Msanjala | 1,679,248.52 |
| Chililabombwe | 1,170,878.57 | Nalikwanda | 1,292,334.92 | Sikongo | 1,381,269.29 | Lufwanyama | 1,485,143.93 | Chasefu | 1,681,414.48 |
| Zambezi West | 1,171,257.93 | Mwansabombwe | 1,295,348.15 | Mwense | 1,381,769.08 | Dundumwezi | 1,491,828.49 | Mbala | 1,699,531.06 |
| Munali | 1,178,737.65 | Kabompo West | 1,295,840.23 | Mambwe | 1,391,434.58 | Chipata Central | 1,498,621.39 | Kasama Central | 1,705,827.85 |
| Mfuwe | 1,187,393.53 | Chingola | 1,296,618.54 | Lunte | 1,397,990.11 | Kaoma central | 1,502,883.42 | Mansa | 1,725,811.65 |
| Kabwe Central | 1,193,256.57 | Rufunsa | 1,297,493.42 | Shiwangandu | 1,400,070.41 | Chisamba | 1,513,806.11 | Mwinilunga | 1,735,783.58 |
| Luapula | 1,193,909.33 | Chawama | 1,298,871.30 | Zambezi East | 1,403,629.89 | Mkaika | 1,515,661.90 | Sinjembela | 1,735,881.60 |
| Livingstone | 1,193,981.97 | Vubwi | 1,306,550.84 | Monze Central | 1,408,969.62 | Sinda | 1,518,059.06 | Lundazi | 1,779,871.98 |
| Bwana Mkubwa | 1,198,220.76 | Chembe | 1,311,219.02 | Lukulu east | 1,409,780.18 | Kaputa | 1,523,557.39 | Kapoche | 1,797,398.26 |
| Liuwa | 1,205,137.56 | Mbabala | 1,316,622.91 | Milanzi | 1,410,208.19 | Nyimba | 1,526,662.24 | Chipangali | 1,800,032.51 |
| Mazabuka Central | 1,205,421.47 | Chitambo | 1,325,930.65 | Itezhi Tezhi | 1,410,858.62 | Solwezi West | 1,530,474.64 | Chienge | 1,857,339.93 |
| Kwacha | 1,214,833.15 | Gwembe | 1,325,996.15 | Nalolo | 1,412,909.15 | Kanyama | 1,546,248.24 | Nchelenge | 2,012,907.91 |
| Luanshya | 1,216,307.56 | Bweengwa | 1,326,486.00 | Petauke | 1,425,123.86 | Kalomo Central | 1,546,781.16 | Malole | 2,065,257.33 |
| lukulu west | 1,220,693.48 | Lubansenshi | 1,328,219.22 | Kalabo Central | 1,425,249.73 | Mpongwe | 1,548,449.14 | Kapiri Mposhi | 2,313,569.92 |

Possible Policy Simulation

The research reported on in this paper has calculated a composite index of deprivation using the 2010 Census data, drawing on similar initiatives in other countries and using internationally accepted statistical techniques. The index highlights the socio-demographic variables that have the greatest influence on deprivation in constituencies and also indicates the relative importance of each variable in contributing to deprivation. It clearly demonstrates that the highest levels of deprivation are experienced in the Sikongo, Luapula, Lukulu West and Sinjembela Constituencies. For equitable development, the current provision of the CDF can be re-allocated on the basis of deprivation and population size of the constituency where the most deprived constituencies get a significantly higher allocation than the least deprived. The other way the resources can be re-allocated is by setting a minimum allocation and re-allocating the additional funds based on the model. The model developed has potential usages beyond the CDF re-allocation; it informs decision-makers on resource allocation in budgeting activities and a useful tool in planning.

For full methods, references and sources refer to the ZIPAR Working Paper No. WP 13 The Resource Allocation model for the Constituency Development Fund.

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