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Principles and Practices in Public Resource Distribution in Kenya

John Kinuthia and Jason Lakin, Ph.D.

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Paper

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1. INTRODUCTION

Kenya's 2010 constitution was partly the result of a long struggle to establish a fairer way of distributing national resources. The question of how to distribute these resources has been debated since at least Sessional Paper 10 of 1965 ("African Socialism and its Application to Planning in Kenya"). While this Sessional Paper is often critiqued for promoting a policy of investing in areas with the greatest potential while shunning redistribution, this view reflects as much collective disappointment with what Kenya did after the paper was published as it does frustration with what the paper actually said. Sessional Paper 10 did indeed state that it was better to invest in an area that was more productive and then redistribute than to invest in areas with low yield. It also stated, however, that equal opportunities should be "provided for people in less developed parts of the country" and that "the needs of less developed areas will be given special consideration."[1] This language is not dramatically different from the 2010 Constitution Section 201(b) (iii) which states that "expenditure shall promote the equitable development of the country, including by making special provision for marginalized groups and areas."

It follows from this that the language Kenyans have used to describe policy has not necessarily changed radically over time, but that there has been a change in people's expectations of actual policy. Understanding these expectations requires further investigation into what is actually meant by equity and fairness in the distribution of resources at the level of principle and practice. This paper attempts to do exactly that, building on past work we have done in this area, to encourage further discussion at national and county level about how to share resources in ways that live up to the spirit of the new constitution. It defines broad principles of equity/fairness and looks at how these have actually been operationalized in existing national government programs. We examine the following principles: giving more to those who need more, ensuring minimum shares for all, giving less to those with greater capacity, giving more to those who make a greater effort, and giving more to those who are more efficient. We also suggest that there is no one way to interpret these principles, or to prioritize them, and fairness therefore means balancing these principles through a process that is open, transparent, and based on sound reasons.

To evaluate current practices, we look at how a number of major initiatives in Kenya actually distribute resources as of 2016. We consider the Constituency Development Fund, various cash transfer schemes, the Equalization Fund, and the conditional grant for regional (Level 5) hospitals. In each case, we examine the approach to sharing resources and ask whether it is consistent with the principles of fairness that we have defined. Our closing section looks at resource sharing in India and South Africa, updating

[1] Republic of Kenya (1965), "African Socialism and Its Application to Planning in Kenya." Issue 10 of Sessional paper. Government of Kenya: Nairobi

our previous research.[2] We compare the approaches taken in India and South Africa to each other as well as to Kenya.

Overall, we find that quite a bit of sophisticated analysis has gone into the determination of resource sharing approaches in Kenya. This is reflected in a wide range of different measures of need used by different programs. However, we also find weaknesses in many of these programs, among them the fact that this diversity of tools to measure poverty and other forms of need raises questions of clarity and consistency. Kenyan approaches to revenue sharing at national level also overemphasize equality to the detriment of equity, leading to results that are often unfair (such as geographical units with widely varying populations receiving the same resources). Kenya's approaches to resource sharing have also focused almost exclusively on need, often measured by rough proxies, which is extreme in comparison to other countries that have used more refined measures and have also looked at other principles, such as capacity and effort.

As policymakers at national and county levels discuss how to design new programs and revise existing resource distributions, we suggest that they would do well to look not only at what the country is currently doing, but to return to first principles of equity and fairness and craft more sophisticated, and ultimately more equitable approaches to realizing the dream of the 2010 constitution.

2. GLOBAL PRINCIPLES AND GOOD PRACTICES IN REVENUE SHARING

What is fair? We begin with a review of fairness principles. We argue that fairness is not a singular concept, but an attempt by societies to balance many principles of equity and justice. What is ultimately considered fair can only be determined through a dialogue in which various views are aired, data are considered, and principles are balanced. We begin by examining these principles.

2.1 PRINCIPLES OF FAIRNESS

A comprehensive theory of fairness or justice is outside the scope of this paper. Our intention is to describe, in simple terms, the kinds of principles generally considered in global discussions on fairness.[3]

[2] Jason Lakin and John Kinuthia "What is Fair? Sharing resources in Kenya," International Budget Partnership, Budget Brief 18A, 2013.

[3] This section draws on James Konow, "Which is the Fairest One of All? A positive analysis of theories of justice," Journal of Economic Literature, December 2003; Amartya Sen, *The Idea of Justice*, Harvard University Press, 2009; James Sabin and Norman Daniels, *Setting Limits Fairly*, Oxford University Press, 2002.

We believe that a fair resolution to resource sharing problems must at least make reference to a set of common principles, or shared norms, whatever decisions are made in particular cases of policy design.

NEED

The most basic principle of fairness is that people who need more should get more.[4] This principle is widely shared, but its application is not always straightforward.[5] Consider the case of sharing resources between someone who is sick and someone who is healthy. Most people will want to give more to the person who is sick because they need more health care than the healthy person. Here we are looking at "fiscal need" as the money needed to pay for and receive services. However, need can be more complex. For example, we may wish to give more to a sick population than a healthy population but we may also take into consideration historical advantage or disadvantage. A relatively healthier population that lacks access to a hospital to care for its sick (even if few) may actually need more resources than a sicker population with high quality facilities. Historical patterns of access to capital also affect needs today. Thus, past resource distribution should also impact our assessment of current needs.

MINIMUM SHARES

A related concept to need, and what is sometimes called "basic needs," is the principle that everyone deserves at least some minimal share of resources. Unlike the need principle, the minimum share principle ensures that everyone has at least some minimum, even if using other principles they would not.[6] For example, if resources were being distributed on the basis of productivity and this led to some groups receiving nothing, many people would feel that this was unfair and that everyone deserves something. A related concept is that of "maximum shares." Some people might feel that, even if other principles would lead to very large differences in access to resources, there should be some limit to how large the differences in access can be.

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[4] Jason Lakin and John Kinuthia, "What is Fair? Sharing resources in Kenya," Budget Brief 18A, International Budget Partnership, 2013; Jason Lakin and John Kinuthia, "Fair Play: Inequality across Kenya's counties and what it means for revenue sharing," Budget Brief 18B, International Budget Partnership, 2013.

[5] In our visits to various counties to prepare the film "A Measure of Fairness," this value was almost always the first to be recognized and shared by participants. The film can be viewed here: http://www.internationalbudget.org/publications/measure-of-fairness/

[6] This principle has empirical support (people often say we should share resources in this way). It also relates to certain philosophical ideas, such as John Rawls's "difference principle" (John Rawls, *A Theory of Justice*, Belknap Press, 1971). The difference principle states that inequalities in society are only fair if they benefit the worst off. For example, if income inequality yields higher economic growth and benefits the poor, it is fair, but if it does not, then it is unfair. The difference principle is extreme but is related to the idea that everyone deserves some minimum share. Some utilitarian thinkers also take the view that, while distributing using utilitarian values, there should still be a minimum share for everyone.

CAPACITY

Capacity refers to the extent to which a person or population can meet their own needs. We can look at two sick populations and ask whether they have the fiscal capacity (financial resources) to pay for their own health care. We tend to believe that a poor family should get more than a rich family because the rich can shoulder their own costs more easily. Fiscal capacity may thus be thought of as the capacity to pay. It is important to distinguish this from need; two families may have the same need for health care (i.e., be equally sick), but the rich family is more capable of paying for those needs than the poor family.

EFFORT

The principle of effort is also sometimes known as the principle of “desert” or even “equity.” It argues that people deserve more when they make more of an effort. What we receive should be proportional to the effort we put in. This sounds simple, but can also be complex. It can conflict with capacity, because we cannot always observe effort. We may be tempted to believe that a rich person or population is rich because they have made a lot of effort, but their wealth could also be due to luck or past favoritism. Effort can also be thought of in terms of how much work we put into something or how much money we put into something, and these may conflict. For example, a rich person may pay more in taxes than a poor one. But a poor person may have to work harder for the earnings they pay taxes on, even if they pay less in taxes. For example, a rich person may earn income from capital investments in the stock market that appreciate without any particular effort on their part. A poor person is likely to earn most of their income from active work.

EFFICIENCY

The efficiency principle reflects a belief that resources given to different people or places do not always yield the same benefit to society. To some extent, resources should be allocated where they will be used most effectively to increase total welfare or where they are valued most highly. This means that resources should be channeled to areas with more fertile soil, people with higher skills, and activities with greater returns. Like effort, it may also relate to incentives to ensure that people produce goods and services.

One of the challenges with the efficiency principle is that the focus on total welfare can lead to greater inequality. Some people can end up being worse off even as average welfare rises. For example, focusing resources on higher-skilled individuals might ultimately lead to a skewed distribution of income that is not considered fair. In Kenya, Sessional Paper 10 is often used as shorthand for the efficiency

principle, though we argue above that this is not an entirely fair characterization of that paper. In any event, some people have argued (as Sessional Paper 10 did) that efficiency is the fairest way to target resources, as long as productivity gains are partially redistributed to benefit the worst off.

PROCESS

The principles discussed above all relate to the fairness of policy decisions and outcomes. But there are various philosophical traditions that argue that process is also an important aspect of fairness.[7] The process principle holds that decisions produced through a fair process are intrinsically better than those produced by an unfair process, regardless of the outcome.

What is a fair process? Generally, fair processes are those where outcomes are decided in an open and transparent way, various positions are considered, and justifications are given for decisions. One way of thinking of a fair process is as something that sits above other principles and determines how they should be weighted. Since need, effort, efficiency, etc., often conflict with one another, balancing these principles also requires a fair decision-making process. This brings us back to the need for reasons, or what has sometimes been called "accountability for reasonableness."[8]

2.2 APPLICATION

Aside from the fact that these principles conflict with each other, they may also be complicated to apply in different cases. Consider the following scenario: Ward A and Ward B both have 10,000 residents. Ward A has 1,000 poor residents (a 10 percent poverty rate). Ward B has 4,000 poor residents (a 40 percent poverty rate). The government makes resources available for cash transfers to poor residents in the country that must be distributed across the two wards. For simplicity, let's assume that a cash transfer of Ksh 1 per person is enough to raise people above the poverty line.

What is the equitable way to distribute the transfers? Two scenarios are explored below.

SCENARIO 1: THE GOVERNMENT MAKES KSH 5,000 AVAILABLE FOR THE CASH TRANSFER PROGRAM

[7] Amartya Sen characterizes many "social contract" theories of justice as focusing on procedure, and includes John Rawls in this category. See Sen, *The Idea of Justice*, 2009.
[8] See Daniels and Sabin, Setting Limits Fairly, 2002. Also see Lakin and Nyagaka, "Budget Deliberation" IBP Paper, 2016.

Most people would probably argue that in this case that Ksh 1,000 should go to Ward A and Ksh 4,000 should go to Ward B, fully resolving their poverty problems. This distribution is based on the different needs of each ward. It does not take into account any other principles.

However, suppose that the government in question was the national government, and the wards were actually located in counties with their own governments. Now people might begin to ask about the capacity and efforts of those county governments to deal with their own population needs. People might begin to suspect that some of the differences between the needs of the wards reflected differences in the behavior of the counties where they were located and that these differences should also be taken into account.

For example, suppose Ward B was located in County X and Ward A in County Y. Now suppose that County X had an economy that was twice as large as County Y, but County X collected half as much revenue as County Y. Many would ask why County X didn't make more of an effort to use its own resources to support its poor population. Given that it has higher capacity (a larger economy) than County Y, many people would feel that it should do more to collect taxes and use them to cater for its own population. This would cause them to reconsider their support for giving more to Ward B.

TABLE 1. DISTRIBUTION WHEN RESOURCES ARE SUFFICIENT TO MEET NEEDS

Scenario 1: Available Funds - Ksh 5,000				
Wards	Population	Number of poor people	% Share of poor people	Sharable revenue based on % share of poor people (Ksh 5,000)
A	10,000	1,000	20%	1,000
B	10,000	4,000	80%	4,000
Total	**20,000**	**5,000**	**100%**	**5,000**

SCENARIO 2: THE GOVERNMENT MAKES KSH 2,000 AVAILABLE FOR THE CASH TRANSFER PROGRAM

We return to our two wards. Ksh 2,000 is enough to eliminate poverty in Ward A, but only halve poverty in Ward B. What should we do? One option is to give Ksh 1,000 to Ward A and Ksh 1,000 to Ward B. Some would argue that this is fair because we have eliminated poverty from one ward, and given an equal amount to the other.

Others would argue that this is not fair because the problem in Ward B is bigger than the problem in Ward A. If 20 percent of all poor people are in Ward A and 80 percent are in Ward B, we should give 20 percent of the money (Ksh 400) to Ward A and 80 percent of the money (Ksh 1,600) to Ward B.

Someone else might argue that the problem is so severe in Ward B that the focus should be on closing the gap between Ward A and Ward B. If the whole Ksh 2,000 is given to Ward B, the poverty rate in Ward A will remain at 10 percent and fall from 40 percent to 20 percent in Ward B. Yet another person might argue that this approach is completely unfair because it treats poor people in Ward B as more deserving than poor people in Ward A, just because the poverty rate is higher. They might further argue that poor people living in a wealthier area are actually worse off because the cost of living is higher and they are less able to influence policy than where poor people represent a larger share of the population.

These disagreements are not really at the level of our broad principles. Each approach recognizes the importance of need; however, the right way to apply the need principle leads to profound disagreement. In most cases, there is no single way to apply or balance the principles that is intrinsically fairer than another. This is why a fair process for making the decision is important. All decisions should be judged according to the degree to which they accord with the principles of fairness and the quality of the justifications provided for the decision.

TABLE 2. DISTRIBUTION WHEN RESOURCES ARE NOT SUFFICIENT TO MEET NEEDS

Scenario 2: Available revenue - Ksh 2,000

Initial Status				Option 1- Available revenue shared equally			
Wards	Population	Number of poor people	% Share of poor people		Share of revenue (Ksh 2,000)	Remaining poor people	Poverty rate after sharing
A	10,000	1,000	10%		1,000	-	0%
B	10,000	4,000	40%		1,000	3,000	30%
Total	**20,000**	**5,000**	**25%**		**2,000**	**3,000**	**15%**
Option 2- Available revenue shared based on % share of poor people					Option 3- Available revenue allocated to the ward with highest % of poor people		
	% share of poor people	Revenue share based on share of poor people	Remaining poor people	Poverty rate after sharing	Share of revenue (Ksh 2,000)	Remaining poor people	Poverty rate after sharing
Wards							
A	20%	400	600	6%	-	1,000	10%
B	80%	1,600	2,400	24%	2,000	2,000	20%
Total	**100%**	**2,000**	**3,000**	**15%**	**2,000**	**3,000**	**15%**

3. CURRENT REVENUE SHARING PRACTICES IN KENYA

This section of the paper moves beyond principle to look at practice by examining how specific government programs in Kenya have incorporated equity. We offer comments where we feel that these programs have not fully or adequately incorporated such considerations.

3.1 NATIONAL GOVERNMENT CONSTITUENCY DEVELOPMENT FUND (CDF)

The National Government Constituency Development Fund (CDF) was started in 2003 to address infrastructure gaps and poverty within constituencies. Since then the allocations to the fund have grown considerably, increasing from Ksh 1.26 billion in 2003/04 to Ksh 35.2 billion in 2015/16. Cumulatively, the fund has received Ksh 193.9 billion in its 13 years of existence.

In the past, the CDF was calculated as a percentage of what the government defines as "ordinary revenue" collected by the national government each year (this includes all major sources of tax revenue). The National Government Constituency Development Fund Act 2015 set the threshold at not less than 2.5 percent of the national government share of revenue as captured in the Division of Revenue Act. This change was intended to ensure that the funds for CDF do not come out of the resources for counties, but only from the national share.

HOW CDF WORKS AND WHY

The distribution of the CDF takes into account two parameters: 75 percent of the fund is shared equally among the 290 constituencies, 25 percent is distributed based on the proportion of all poor people in Kenya that reside in a particular constituency.[9,10,11] The principle of equality as represented by the large equal share to each constituency under the CDF provides each geographical unit with a similar amount, regardless of the size of the population in the constituency.

[9] See http://info.mzalendo.com/hansard/sitting/national_assembly/2008-10-07-14-30-00#entry-185239.
[10] Central Bureau of Statistics, Ministry of Planning and National Development, "Geographic Dimensions of Well-Being in Kenya: Who and Where Are the Poor?" A Constituency Profile Volume II
[11] Central Bureau of Statistics, Ministry of Planning and National Development "Constituency Report on Well-being in Kenya. Based on the Kenya Integrated Household Budget Survey-2005/06"

While the fund is mostly for capital projects, the CDF Act does allow roughly one half of it to be allocated to non-capital items such as bursaries and sports. Table 1 shows the total proportion of CDF that can be allocated to each of these items in each constituency.

TABLE 3. EXPENDITURE CEILINGS FOR PRIORITIES OTHER THAN CAPITAL PROJECTS THAT CDF CAN FUND AS OF 2016[12]

Description of expenditure	Approved maximum allocation in %
Administration (incl. O&M (vehicles, equipment, and machinery)	6%
Social Security programs (bursaries and examination costs)	35%
Emergency reserve	5%
Sports activities	2%
Environmental	2%
Monitoring and evaluation	3%
Total	**53%**

Source: CDF Board Website

IS THE CDF FAIR?

The large proportion of the fund that is shared equally among the constituencies ensures that each constituency receives a certain minimum allocation. This creates an impression of equity. But, from our previous discussion, fair distributions should take into consideration basic principles like need and effort. Giving equal amounts to people or regions with unequal needs is not necessarily fair.

The high equal share ensures that poor people are treated differently in different parts of the country. There are large differences in the number of poor people in each constituency, even among those with similar poverty rates. Giving a large share of the CDF equally to constituencies causes the per capita allocations to be very different in constituencies. The result is that a constituency with more poor people would receive less per poor person than a constituency with fewer poor people. For example, Kitutu Masaba and Mwatate both have a poverty rate of 50 percent, yet there are three times as many poor people living in Kitutu Masaba than in Mwatate. The equal share part of the formula gives much less to poor people in Kitutu Masaba. If we are going to give equal shares, it is usually fairer to give equal resources on a per capita basis rather than giving equal resources per geographical unit (regardless of population) because many service costs rise with population.

Another problem with using the poverty rate is that it does not fully capture need. Data from KNBS show that the poverty rate can mask the severity of poverty, as measured by looking at the resources required

[12] National Government Constituencies Development Fund Act 30 of 2015. Articles 8,25(8), 25(9). 25(10), and 48.

to lift the poor out of poverty. This is known as the poverty gap. For example, if people with household expenditure between zero and the poverty line are considered poor, some will be just below the poverty line while others are closer to zero income. Should constituencies where more people have expenditures close to zero perhaps receive more than those where a majority of the population is closer to the poverty line?

Consider a hypothetical example. Constituencies X and Y have the same poverty rate and the same number of people living below the poverty line (four). Let us assume that one is considered poor if they spend Ksh 100 or less per day. We then look at individuals in each constituency and how much it would take to push them above the poverty line.

Table 4 illustrates that if constituency X was to lift individual 1 out of poverty, they would need to invest Ksh 3 to get to Ksh 100. In the case of Y, it would take Ksh 38 to lift the first individual out of poverty. The poverty index grades both individuals as poor, but the poverty gap gives information on how far individuals fall below the poverty line. We can see that constituency X requires Ksh 21 to lift its population out of poverty compared to Ksh 70 needed in constituency Y. We might argue that constituency Y has a greater need for resources to improve the lives of its poor population.

TABLE 4. THE POVERTY GAP VERSUS THE POVERTY RATE

Constituency	**Poverty rate**	**Expenditure levels for four individuals in two constituencies**				**Population below poverty line**
		1	*2*	*3*	*4*	
X	50%	97	88	99	95	20,000
Y	50%	62	90	78	100	20,000
		Distance between the individual expenditure and the poverty line				***Total***
X		3	12	1	5	21
Y		38	10	22	0	70

A third problem is that the CDF is very imprecise in how it measures the very need it is supposed to address. The CDF is theoretically a capital grant that should be distributed based on the need for improved infrastructure. The poverty index does not directly measure infrastructure gaps, which may vary in ways that are different from raw poverty. Thus the main need the grant is designed to address is not actually measured in the distribution criteria.

A final concern about the CDF distribution criteria is the data that it is based on, and whether these were selected through a reasonable and fair process. The CDF originally used data from a 2005 Ministry of

Planning report, which was in turn collected in the late 1990s. According to the 2010 Hansard, the Ministry of Planning wanted to start using new poverty data based on Kenya Integrated Household Budget Survey (KIHBS) which was collected in 2005/2006. However, parliament had two key reservations about the accuracy of these new poverty figures and were reasons they wanted to keep using the older data:

- KIHBS (2005/06) showed a significant reduction in poverty rates in certain districts compared to the last poverty data that was published in 2005 based on poverty numbers from 1997, yet no visible government poverty reduction programs had been implemented and members of parliament (MPs) felt the fall in poverty in these areas was suspect.

- Although certain neighboring districts were expected to have similar poverty figures, the KIHBS showed considerable differences among them in poverty rates, leading MPs to believe there were errors in the survey. [13]

While these might appear to be plausible reasons for using older data, they are actually rather unconvincing. The first point related to government poverty reduction programs seems misplaced, since economic activity and subsequent private sector growth can also lead to poverty reduction. Moreover, parliament's characterization of the data is misleading. We obtained data from the two sources that relate to the debate in parliament referenced above: "Geographic Dimensions of Well-being in Kenya: Who and where are the poor? A constituency level profile," which was released in 2005 (but is based on data from the late 1990s) and "Constituency Report on Well-being in Kenya," which was released in 2007 (based on data from Kenya Integrated Household Budget Survey, 2005/6).

When we compare these two datasets, we find that poverty did not uniformly decline between the two sources. In fact, 84 constituencies out of the 210 actually saw their poverty rate increase or remain the same. Of those whose poverty rates decreased, 61 of them had their rates decrease by 10 percentage points or less. Taken as a whole, the data do not consistently show poverty reduction and it is not clear that there is any particular bias in the areas that increased or decreased their poverty rates. MPs provided no evidence of bias in the survey in their discussion in parliament.

Beyond this, the underlying data and formula used to distribute CDF today is not transparent. We looked at the data from both of the sources mentioned above, but it is difficult to tell if any of this data is currently in use in allocating funds to CDF. If it is, it is unclear how it was adjusted to estimate poverty rates for the

[13] See http://info.mzalendo.com/hansard/sitting/national_assembly/2010-10-27-09-00-00#entry-81584

many new constituencies created in 2013/14 (there were many fewer constituencies when the data was generated).

When we tried to relate either data source to publicly available information on CDF allocations in 2012/13, the last year during which there were 210 constituencies as there are in these datasets. We were not able to make a connection. We simulated the allocations for each constituency as laid out in the CDF Act, using the older figures Parliament preferred and the newer figures they disliked, and allocating 75 percent equally and 25 percent based on the constituency's share of national poverty. Using either dataset, our figures differ by large margins from the actual allocations in 2012/13[14] (see table 2012/13 CDF Allocations Compared to Simulations Based on Available Poverty Reports).[15]

Although it is not mentioned in the CDF Act, the 2005 "Geographic Dimensions" report does indicate that the formula uses adjusted poverty numbers to weight poverty in rural areas more heavily than poverty in urban constituencies. According to the report, urban areas were reduced to 23 percent of their actual poverty numbers in order to favor rural areas. Does this explain the differences we observe between our figures and the actual CDF allocations?

While we do not have any listing of constituencies by urban or rural status, we can look at those cases where we are sure of the status. Consider Mandera Central (rural) and Embakasi (urban) as examples. Embakasi constituency contributed a total of 166,608 people to the country's total poor in the 2005 "Geographic Dimensions" report. Applying the weight of 0.23 to Embakasi's number, the adjusted number of poor people drops to 38,320 and subsequently the proportion of poor people in Embakasi to all poor Kenyans reduces substantially.

On the other hand, Mandera Central's 60,894 poor is not adjusted. However, due to the reduction in the number of poor people in urban constituencies like Embakasi, Mandera Central's share of the poor countrywide increases. Unfortunately, without information on the classification of all constituencies by urban-rural status, we cannot be certain of how much more Mandera should get relative to Embakasi. Our figures show that without any adjustment, Embakasi would have received more than Mandera Central using either of the two datasets available. However, Mandera Central received more than twice as much as Embakasi in 2012/13. That difference seems too large to be driven by the 0.23 adjustment for urban areas, given that that adjustment only affects 25 percent of the fund (the other 75 percent is still distributed equally). However, it seems plausible that the increase in Mandera Central's share and

[14] As presented on the CDF website: http://www.cdf.go.ke/allocations

[15] See accompanying table 2012/13 CDF Allocations Compared to Simulations Based on Available Poverty Reports (2005 and 2007): http://bit.ly/IBPKCDFTable

reduction in Embakasi's share is in part related to this urban-rural adjustment mentioned above, though we cannot be certain. The lack of a clear explanation of how the underlying poverty data is used to generate the allocations for CDF is a major transparency gap.

One final challenge about the data and the process of selecting it is that the National Assembly passed a criterion for county revenue sharing in 2012 which made use of poverty figures from the same survey (2005/2006 KIHBS) they rejected as the basis for CDF distribution. This raises further questions about the reasonableness of the process by which the data were selected for CDF distribution. Generally, the confusion around which data is being used and how, and the tangential issues raised by Parliament, points to a process that lacks transparency, and falls short of the standards of public reasoning expected from a fair process.

In sum, the CDF distributional criteria are not ideal. There is a heavy emphasis on "equality," which is defined in a way that does not lead to even per capita equality and does not recognize the massive disparities in levels of development across the country. The measure of poverty is also crude, despite more sophisticated measures being available. The use of poverty is also an ineffective proxy for the stated objective of the fund, which is to reduce infrastructure gaps. More direct measures might be more accurate. Finally, there is a fundamental lack of transparency about the underlying data and calculations used to measure poverty. The data used might be outdated and the process by which this data was chosen lacks plausibility.

3.2 CASH TRANSFER PROGRAMS

Kenya has a long history of social welfare programs. These have traditionally taken the form of food aid to households in areas vulnerable to droughts and famine. However, in the last few years the government has shifted toward direct cash transfers to such households and there has been a substantial increase in the number of households served. The safety net program was allocated Ksh 45.01 billion cumulatively between 2012/13 and 2015/16 for all the cash transfer programs.

There are currently five main cash transfer programs at the national level: the Older Persons Cash Transfer (OPCT), the Cash Transfers to Orphans and Vulnerable Children (CT-OVC), the Hunger Safety Net Program (HSNP); the Urban Food Subsidy Cash Transfer (UFS-CT); and the Persons with Severe Disability Cash Transfer (PWSD-CT). We look at three of these.

OLDER PERSONS CASH TRANSFER

The Older Persons Cash Transfer (OPCT) program was launched in 3 districts in 2007 to support very poor households that have at least one member who is 65 years and above. [16] The fund has two main objectives:

1. To cushion the elderly against income based risks such as poor health, lack of food, and sickness.
2. To reduce the dependence of the elderly on their households and allow their children or grandchildren to go to work or school.

The rationale for the transfer is that, as people get older, their ability to earn a livelihood decreases. The elderly in Kenya do not have pension plans and thus depend on their family members, which can in turn cause poverty. Pension payments are meant to cushion the elderly against this loss of income.

Geographical Targeting

By 2009, the pilot project had expanded from the three districts to 44 districts, supporting 750 households in each. However, this excluded 131 constituencies out of the 210 in the country at that time. Between 2012/13 and 2013/14, Kenya transitioned from away from districts to counties and constituencies. The program was expanded to cover all constituencies and the number of selected beneficiaries was 180 households per constituency (150 enrolled while 30 placed in a waiting list). Those on the waiting list move into the beneficiaries list when more funds become available or when current beneficiaries leave the program. Data from the World Bank from 2013 shows that the average number of households per constituency is above 180, suggesting that not all constituencies have the official figure of 180. [17]

Household targeting[18]

Ensuring the neediest households in the constituency are selected as beneficiaries involves a number of steps. The household must have a member who is 65 years or older and be categorized as extremely poor and vulnerable based on a criteria known as a Poverty Score Card (PSC). The PSC criteria measures how poor a household is based on a number of indicators such as health condition, house construction, household assets, age, and others. A score for each household is generated from the data which is the primary eligibility criteria.

16 See page 3 of http://siteresources.worldbank.org/PROJECTS/Resources/40940-1393966271292/KenyaNationalSafetyNetProgramforResultsTechnicalAssessment.pdf
17 See pages 11 and 13 of http://siteresources.worldbank.org/PROJECTS/Resources/40940-1393966271292/KenyaNationalSafetyNetProgramforResultsTechnicalAssessment.pdf
18 Ministry of Labour, Social Security and Services, "Cash Transfers Operations Manual," June 2013, page 30

There is a second set of criteria that a household must meet to qualify for the program:

- The beneficiary must have an identity card.
- Households in urban areas should earn less than Ksh 2,000 and households in rural areas less than Ksh 1,500.
- The household should not be enrolled in any other cash transfer program.
- The beneficiary must have lived in the location for more than a year.

If the funds available for the program are not enough to meet universal coverage, the PSC score is used to identify the poorest and most vulnerable eligible households, which are given priority.

Is the OPCT Fair?

The distribution of OPCT households to all the 290 constituencies ensures that every region in the country is able to benefit from the program. This recognizes the fact that even though poverty rates vary across the country, all constituencies have poor residents. Embakasi West has the lowest poverty rates at 10 percent, while Turkana East has the highest poverty rate with 93 percent of its population living below the poverty line. At a broad level, helping households in every constituency is consistent with the minimum share and need principles.

However, what is the basis for providing support to an equal number of households in each constituency? Population varies widely among constituencies. Mandera South has the highest population in the country (226,500), which is 12 times higher than Lamu East, the least populated constituency.

Table 5 estimates the number of poor elderly in each constituency, assuming that the poverty rate for the elderly is the same as the overall poverty rate. Given that poverty tends to be higher among the elderly, this is a conservative assumption.[19] The table shows the number of individuals who are 65 and over and who live below the poverty line in the constituencies with the highest and lowest share of such residents. Makueni has 66 times the number of elderly poor compared to Embakasi West.

[19] On average, households with older persons have higher poverty rates (56.4 percent) compared to the national poverty average of 46 percent based on the Household Budget Survey of 2005/6.

TABLE 5. INDIVIDUALS AGED 65+ LIVING BELOW THE POVERTY LINE AND CONSTITUENCIES WITH HIGHEST AND LOWEST POVERTY RATES

Constituency	Total population	65+ years	Headcount Index: percent of individuals below poverty line	65+ years in poor households
Makueni	190,865	9,730	71%	6,876
Kinango	208,620	7,421	84%	6,250
Kitui South	164,440	8,065	74%	5,984
Mbooni	183,475	11,056	53%	5,842
Mwingi North	138,956	6,878	81%	5,589
Lamu East	18,539	767	25%	189
Embakasi South	200,694	738	25%	187
Embakasi East	159,897	1,151	16%	183
Embakasi Central	190,344	988	11%	108
Embakasi West	157,232	999	10%	103
Average	***130,757***	***4,564***		***2,069***

Source: Population and Housing Census 2009 and Kenya Integrated Household Budget Survey 2005/06, KNBS

The data in Table 5 is not the same as that used by the program; our analysis is based on individuals while the program looks at households and uses more sophisticated poverty targeting. Nevertheless, the variations in old-age poverty across constituencies in our data are so large that they must indicate widespread differences at household level as well. Given this, the principle of need would suggest that it may be inequitable to provide support to an equal number of households in each constituency when some constituencies have much greater need than others. For example, Embakasi West does not even appear to have 150 individuals, let alone households, that should benefit from such a program, yet it is entitled to 150 slots and a waiting list.

In addition, the size of households that are enrolled in the program also matter in assessing how equitable the transfers are. Household fertility rates in Kenya vary from eight children in Wajir County to two children in Kirinyaga County.[20] If we assume that the number of children in a household is an indicator of household size, then there is significant variation across the country. Equity would demand some consideration of household size when determining transfers.

ORPHANS AND VULNERABLE CHILDREN CASH TRANSFER

The program started in 2005 to provide income support for households taking care of orphans. The program defines orphans and vulnerable children (OVCs) as children living in a home where one or both

20 See page 67 of http://www.knbs.or.ke/index.php?option=com_phocadownload&view=category&download=823:kenya-demographic-and-health-survey-2014&id=125:kenya-demographic-health-survey-2014&Itemid=599

parents have died, children living in households headed by a child (<18 years old), or households with children where the caregiver is critically ill.

The cash transfer program was started in four districts but has expanded to cover all constituencies in the country today. However, the cash transfer for OVCs has not reached universal coverage due to a shortage of funds.

Geographical Targeting

All the constituencies are eligible for the program and at least one location is supported in each of the 290 constituencies. The total number of beneficiaries in a constituency is determined by poverty rates and the vulnerability of households with OVCs.[21]

How are these beneficiaries distributed? The number of extremely poor households with an OVC is used to rank the locations in each constituency. Constituencies with a small number of OVCs will have only one beneficiary location while those with more OVCs will have more locations supported.

Household Targeting[22]

There are three steps to targeting households. First, some members of the local community, through something known as a Location OVCs Committee, lists potential beneficiary households, which are validated during community meetings (*barazas)*. The names are then sent to the OVC secretariat. The second step is to collect socioeconomic data from the selected households using a Proxy Means Test to ensure that these households are in fact extremely poor. Third, if all the household who meet the definition for extremely poor households are fewer than the number of beneficiaries allocated to a constituency, then they are all enrolled. However, if the number of potential beneficiaries is higher, the households go through an extra process of selection. The process includes:

1. The number of households supported in each location is based on the number of qualified households in the location as a share of all eligible households in the constituency. For example, if a constituency has 100 qualified households, location A with 10 qualified houses gets 10 percent of the supported households in the constituency.

21 See page 13 of http://siteresources.worldbank.org/PROJECTS/Resources/40940-1393966271292/KenyaNationalSafetyNetProgramforResultsTechnicalAssessment.pdf

22 CT-OVC Operation Manual by the Min of Labour and Social Services. Page 20

2. Households that are headed by children (15 to 22 years old) are given the highest priority. In a scenario where two households are competing for a slot and are headed by children of the same age, then the one with more OVCs is selected.
3. If there are open vacancies after these initial steps, the households with the next highest Proxy Means Test (PMT) scores are moved onto the beneficiaries list.
4. The remaining eligible households are kept on a waiting list that can be drawn from as the program expands or as other beneficiaries drop out.

Is the Orphans and Vulnerable Children Cash Transfer Program Fair?

The complexity of the distribution mechanism makes it challenging to assess. However, there are a few issues that can be analyzed. At the regional level, the program ensures that every constituency has at least one location participating. This means that it is possible for a constituency where are all locations are better off than the national average to participate, while locations in another constituency that are all worse off are not all able to participate. In other words, the worst off locations in the country do not necessarily participate because of the constituencies they happen to be in. This challenges basic notions of fairness based on need.

In addition, the second tier selection process does not explain why child-headed households are given preference over those headed by an ill caregiver. Although there may be reasons for this, it is not clear from available documentation why child-headed households are deemed to be needier.

At the household level, the targeting process seems fair as the neediest households in the location are selected based on a number of approaches. The addition of a community validation process is meant to ensure that the cash allocation for each constituency benefits those who need it the most. Community validation processes can also be subject to bias if communities are not properly briefed about the program or if they are motivated by other interests than the welfare aims of the program. By blending community validation with objective poverty measures, however, there is some assurance that the program covers the poor.

SUMMARY OF CASH TRANSFER PROGRAMS

The three cash transfer programs use a complex set of distributional criteria, with decisions at regional and household level based on sophisticated poverty assessments. This suggests that the criteria are specific and plausibly related to the desired outcomes of the program. Nevertheless, there is a certain degree to which equality of access to the program at constituency or location level is prioritized above

need, such that better off parts of the country benefit more than fairness might dictate. Moreover, the complexity of the targeting of these programs raises questions about whether they are understood and whether the process of selection is open and reasonable.

3.3 EQUALIZATION FUND

The Equalization Fund was established by the constitution to target marginalized areas where access to health facilities, water, roads, and electricity lags behind other areas in the country. The fund has accumulated over Ksh 20 billion since 2011/12 because the money in the fund has not been disbursed through 2015/16. However, the government has not fully funded it and expects the actual balance to be about Ksh 12 billion this coming year, including the 2016/17 allocation.[23]

The grant is meant to be distributed in two stages. First, the Commission on Revenue Allocation (CRA) selected 14 of the most marginalized counties according to its marginalization policy (described below). Second, CRA determined how much each of these counties would access.

HOW THE EQUALIZATION FUND WORKS AND WHY

In 2013, CRA tabled a policy in the National Assembly to identify marginalized areas that should benefit from the Equalization Fund. [24] CRA opted to define "areas" as counties in that policy, though this was not clearly indicated by the constitution. The policy is supposed to be effective for three years and it will be reviewed after that period.

CRA took three factors into consideration when coming up with the distribution criteria for the fund: a county development index, a CRA study on marginalization, and an analysis by CRA on historical injustices among counties.

To determine the development deficiency in each county, CRA decided to make use of available data that cut across four areas which were, in their view, related to the services mentioned in the section of the constitution that created the Equalization Fund. The selection of these items was also based on availability of disaggregated data down to the county or ward level.

[23] Republic of Kenya, "2016/17 Estimates of Revenue and Expenditure from Equalization Fund of the Government of Kenya for the year ending June 30, 2017."

[24] See http://www.crakenya.org/wp-content/uploads/2013/10/CRA-Policy-on-marginalisation-driteria.pdf

The four parameters are listed in Table 6. As can be seen, education has a weight equal to that of infrastructure and health, even though the constitution does not mention education as one of the sectors to be tackled by the Equalization Fund. No reason is given as to why education is one of the priorities CRA included in the marginalization policy.

These parameters are not used to distribute all of the funds from the Equalization Fund; the marginalization policy requires 50 percent of the Equalization Fund to be shared equally among the 14 marginalized counties, while the other 50 percent is shared based on the parameters in Tables 6 and 7.

TABLE 6. WEIGHTS ASSIGNED TO PARAMETERS USED TO MEASURE COUNTY DEVELOPMENT INDEX

Category/Dimension	Weight
Poverty Gap	16%
Infrastructure	28%
Health	28%
Education	28%
Total	100%

Source: CRA

The four parameters are measured through the following set of specific variables.

- *Health Indicators*: The variables used to determine the sharing of funds under this category include: the percentage of mothers per county who delivered in facilities with the help of a qualified medical personnel, access to improved sanitation and the percentage of immunized children in each county.
- *Education indicators:* the levels of literacy and the proportion of the population with secondary education or more are the two variables used to determine the levels of access to education within counties.
- *Infrastructure indicators*: CRA used the percentage of tarmacked roads, access to improved sources of water and access to electricity as the indicators here.

All the data for these indicators is from the population and household census carried out in 2009.

- *Poverty indicator:* data from the Kenya Integrated Household and Budget Survey done in 2005/06 was used to calculate the poverty gap for each county. The table below shows each of the indicators with their weights.

TABLE 7. DIMENSIONS, INDICATORS, AND WEIGHTS IN CRA MARGINALIZATION FORMULA

Category/Dimension	Weight	Indicator	Weight
Poverty gap	16%	Poverty	16.0%
Infrastructure	28%	Roads	9.3%
		Electricity	9.3%
		Water	9.3%
Health	28%	Immunization	9.3%
		Sanitation	9.3%
		Deliveries in Health Facilities	9.3%
Education	28%	Literacy	14.0%
		Secondary Education	14.0%
Total	**100%**		**100%**

Source: County Development Index to Identify Marginalized Counties by CRA: http://www.crakenya.org/wp-content/uploads/2013/10/CREATING-A-COUNTY-DEVELOPMENT-INDEX-TO-IDENTIFY-MARGINALISED-COUNTIES.pdf

The CRA report does not explain how these weights were arrived at. For example, health and education are given the same weight of 28 percent. Why?

IS THE DISTRIBUTION OF THE EQUALIZATION FUND USING THE CRA MARGINALIZATION POLICY FAIR?

The Equalization Fund is a conditional grant which means it should be targeted at very specific expenditure items. Poverty is one of the parameters employed by CRA in the distribution of the fund. Proxy measures like income poverty do not directly assess the need for specific services (health, electricity, water, and roads) that the fund must address according to the constitution. It may disadvantage areas with slightly higher incomes that lack access to basic infrastructure and services.

The CRA's approach to measuring infrastructure is also questionable. The road access variable is calculated based on the percentage of roads tarmacked in a county. This seems to ignore the fact that a county's need for roads will differ according to its size and population density. The percentage of roads tarmacked is also a poor measure of need – a county may have all roads tarmacked, but have very few roads to begin with.

It is also surprising that the health sector indicators look only at service measures and not at infrastructure. As Table 8 shows, facility access is quite unequal across the country and would be an equally valid measure for a marginalization index.

TABLE 8. POPULATION TO HEALTH FACILITY RATIO AMONG MARGINALIZED COUNTIES, 2015

County	Population (2012)	Public Health Facilities (2015)	Ratio of Population to Facilities
Mandera	1,126,103	63	17,875
Kilifi	1,218,297	106	11,493
Kwale	713,512	80	8,919
Narok	934,163	117	7,984
Garissa	684,012	90	7,600
Wajir	726,697	107	6,792
Turkana	939,080	155	6,059
West Pokot	526,845	93	5,665
Tana River	263,561	47	5,608
Taita Taveta	312,504	61	5,123
Marsabit	319,650	72	4,440
Isiolo	157,312	39	4,034
Lamu	111,472	28	3,981
Samburu	245,855	63	3,902
Total	**40,721,232**	**5,072**	**8,029**

Source: Health Information Management System and KNBS

The decision to weight education, health, and infrastructure by 28 percent each also raises concerns. Generally, a distributive formula should look at needs not just in terms of access but also in terms of cost of delivery. This is why many revenue sharing formulas, including CRA's own formula for the equitable share, include land area. Counties with larger land areas have a higher cost of service delivery due to more expensive logistics. Likewise, if the cost of health, education, or infrastructure are different, giving them the same weight may be unfair.

For example, assume that it costs five times as much to deliver health services as to deliver Early Childhood Development (ECD) services. Giving these parameters the same weight means a county with very poor ECD services and decent health services receives a similar amount to a county with very poor health services but decent ECD. Since the cost of improving health services in the county with poor health would be much higher, this could be considered unfair.

The decision to target counties as the unit of distribution raises equity concerns as well. The selection of 14 marginalized counties excludes constituencies, wards, and locations that are equally poor in income or access to services as those in the counties selected simply because they are in one of the other 33 counties. Why are the needs of some Kenyans in wards outside of the 14 selected counties less important than those within?

Finally, the 50 percent of the Equalization Funds that is equally shared privileges equality over equity as measured by the parameters in the formula. Since CRA had already invested in collecting that data, which itself shows inequalities across the marginalized wards, it is not clear why the equal share should be as high as it is. The current approach means that the difference between the counties receiving the highest and lowest allocations is three percentage points. In other words, the county receiving the lowest allocation receives six percent of total available funds, while the county receiving the highest allocation receives nine percent of the available funds.[25] If the funds were fully allocated based on the parameters in Table 7, the range of allocations would be between five and 11 percent, which is an indication of the level of inequality among the marginalized counties. It would appear to be more equitable to have a lower equal share that more fully recognizes those inequalities.

At a process level, the marginalization policy for the Equalization Fund also falls short. There is no clear explanation for what was included and what was left out, raising questions of reasonableness. For example, immunization is part of the health parameter but child nutrition is not. Education, which is not in the constitution as a function of the fund, is given more weight than water and electricity, both of which are specifically mentioned.

3.4 ALLOCATION FOR LEVEL 5 HOSPITALS

Level 5 hospitals are the second highest level of health care facility in Kenya. This class of hospitals includes all of the former provincial hospitals and four additional high volume facilities. These are Thika, Kisii, Meru and Machakos Level 5 (L5) hospitals. These facilities have a regional catchment area and serve as referral hospitals for more than one county. They are managed by individual host counties under devolution and a conditional grant has been introduced to ensure that they continue to offer regional referral services to their broader catchment areas beyond the host county. The facilities were allocated Ksh 8.87 billion in the first three years of devolution.

HOW IS THE L5 GRANT ALLOCATED AND WHY?

Table 9 shows the criteria for distributing funds to these facilities prior to devolution.

[25] This can be seen on page 37 of the CRA marginalization policy report available at: http://www.crakenya.org/wp-content/uploads/2013/10/CRA-Policy-on-marginalisation-driteria.pdf

TABLE 9. MINISTRY OF HEALTH RESOURCE DISTRIBUTION CRITERIA FOR L4S AND L5S

Variable	Weight
Poverty	20%
Beds utilized	40%
Outpatient cases	20%
Accident prone facilities	5%
Fuel costs	15%
Total	100%

Source: Health Rights Advocacy Forum, "Mapping Government Decentralised Health Funds," 2011 http://www.universalhealth2030.org/index.php/documents-publications/category/3-kenya-health-system?download=28:Mapping%20Government%20Decentralised%20Health%20Funds&start=40

Since 2013/14, the criteria used in the Division of Revenue process to allocate money among the facilities has been unclear. In 2015/16 the single criteria for allocating the grant among the 11 hospitals was the bed occupancy rate. This is also the criteria CRA and Treasury have used in their recommendation for distributing the fund among the facilities in 2016/17. The amount allocated to each facility in the County Allocation of Revenue Bill 2016 is based on their bed occupancy rate as shown in Table 10.

TABLE 10. SHARE OF ALLOCATIONS FOR L5S BASED ON BED OCCUPANCY FOR 2016/17

Facility	Bed occupancy rates	*Bed capacity*	*Occupied beds*	CARB 2016 county allocation (million)	Share of county allocation based on the CARB criteria	Share of occupied beds to the total	Allocation based on number of occupied beds as a share of the total (million)
Machakos	79%	*375*	*296*	365	9%	8%	339
Embu	62%	*618*	*383*	287	7%	11%	439
Garissa	71%	*224*	*159*	328	8%	5%	182
Kakamega	88%	*449*	*395*	407	10%	11%	453
Meru	77%	*306*	*236*	356	9%	7%	270
Mombasa	80%	*499*	*399*	370	9%	11%	457
Nakuru	77%	*588*	*453*	356	9%	13%	519
Nyeri	84%	*323*	*271*	388	10%	8%	311
Kisumu	76%	*457*	*347*	351	9%	10%	398
Thika	85%	*265*	*225*	393	10%	6%	258
Kisii	86%	*379*	*326*	398	10%	9%	373
Total		***4,483***	***3,491***	**4,000**	**100%**	**100%**	**4,000**

Source: CARB and Ministry of Health www.ehealth.or.ke

IS THE LEVEL 5 HOSPITALS GRANT DISTRIBUTED FAIRLY?

Is the use of bed occupancy as the basis of distribution fair? Kakamega Level 5 has the highest bed occupancy rate (88 percent) and is allocated the most funds (Ksh 407 million). Embu Level 5 has the lowest occupancy rate and is allocated the least (Ksh 287 million). But given the wide variation in the actual number of beds in each facility, using bed occupancy rates actually introduces a distortion. While Nakuru and Meru have the same occupancy rates, Nakuru has almost twice the number of beds than Meru. Given that actual costs are a reflection of how many people use the facility, this is not an equitable or efficient allocation criteria. A more equitable approach (and one more typical of revenue sharing formulas) would look at a facility's actual occupancy as a share of total occupancy for all facilities. Were we to do this, as in column 5 above, Nakuru would receive nearly double what Meru receives (13 percent versus 7 percent).

Furthermore, the L5 formula fails to account for effort, despite it being relevant in several ways. First, hospitals do charge for their services and use them to fund some of their operations. The degree to which these fees are collected, retained, and used appropriately could be considered in the distribution criteria. Beyond fiscal effort, hospitals also should be concerned with minimizing the duration of inpatient stays for a particular quality of care. Incentivizing bed occupancy has the opposite effect, encouraging facilities to keep patients longer and treat outpatient interventions as inpatient interventions. While this may not have an impact on regional equity *per se*, it may have an impact on individuals. Those who suffer from diseases that are easier to classify as needing inpatient care, even if unnecessary, may be more likely to receive excess care.

SUMMARY

Our review of current practice in Kenya suggests that there are a number of mechanisms in use for distributing resources. All of these take into account need in some fashion, some appear to take into account notions of minimum shares and equality, but fewer take into consideration other principles such as effort, capacity, or efficiency. In some cases the approaches were found to be quite sophisticated and complex. Yet in all cases legitimate questions remain as to whether they are properly balancing equity principles with other considerations and whether the process of arriving at these decisions was reasonable. This points to a need to learn something from the ways in which existing programs work, and seek better designs and a more comprehensive consideration of principles of fairness in line with constitutional principles.

4. INTERNATIONAL EXAMPLES

In this final section, we consider some examples from beyond Kenya's borders of how others think about equity in resource sharing. Globally, many countries have formal revenue sharing procedures, including formulas informed by principles of fairness. The analysis here updates our previous work on India and South Africa.[26]

4.1 INDIA

The Indian Finance Commission is the equivalent of Kenya's CRA. It determines how revenues are shared between the national and state level, and how they are shared among the states. India's formulas have considered the following factors in recent years:

- Measures of fiscal need, such as population and area.
- Measures of capacity, such as the difference between a state's income and the state with the highest per capita income, and the state's capacity to generate their own resources from their own land.
- Measures of fiscal effort, such as a fiscal discipline parameter which rewards good use of resources and local revenue raising effort.

The last two formulas, including the current formula adopted in 2015 by the 14th Finance Commission, are shown in Table 11 below.

TABLE 11. 13TH AND 14TH FINANCE COMMISSION FORMULAS (2010 AND 2015)

Criteria and weights	13th FC (Weights)	14th FC (Weights)
Population	25%	17.50%
Demographic change	Not included	10%
Fiscal capacity distance	47.50%	50%
Area	10%	15%
Forest cover	Not included	7.50%
Fiscal discipline	17.50%	Not included
Total	**100%**	**100%**

[26] See Jason Lakin and John Kinuthia, "What is Fair?" IBP, 2013.

The current formula is significantly different from the formula adopted by the 13th Finance Commission. The population parameter remains, and is recognized as necessary for ensuring the needs of residents are properly addressed. It has been updated in the new formula to account for population change over time. [27]

The weight attached to the land area of the states increased from 10 to 15 percentage points between the 13th and 14th commission recommendations. The 14th commission argued that all states, no matter how small, have similar costs for basic operations and services. Therefore, the commission gave a minimum floor of two percent at the state allocation level for the land area parameter. The commission also appeared to believe that the cost of service delivery in larger states begins to plateau at some point and therefore above some land area, there is no need for further compensation through the formula. [28],[29] However, no cap was placed on the amount that a state would receive from the formula for the land area variable.

Generally, fiscal capacity remains the single largest determinant of how revenue is shared among Indian states. Income distance is a component that measures the gap in per capita GDP between states. The weight on this parameter increased slightly from 47.5 percent to 50 percent between the 13th and 14th commissions.[30]

The forest component was added to compensate for the opportunity cost in states where productive land is covered by forests (whose use is regulated by the central government) and therefore not available for economic activities which affects the fiscal capacity of a state.[31] The result is a fiscal "disability" (limitation on revenue generation) which the commission tries to address through the formula. The commission assigned a weight of 7.5 percent to this new parameter. This is the same argument that is often made in Kenya by residents of counties that host national parks and reserves.[32]

[27] The law says the FC should use the state population as it was in 1971. The new parameter for demographic change helps take into account any population changes that happened between 1971 and 2011. Generally, the weight for population has increased by 2.5 percentage points. 14th Indian Finance Commission (Page 14).

[28] The relationship between increasing costs and increasing land area is not linear and at some point, the costs remain roughly the same even if the land size is larger. The allocations based on area are then capped to avoid disproportionately allocating resources to larger areas in the context of flattening fiscal needs due to area sizes.

[29] See page 94 of http://finmin.nic.in/14fincomm/14fcreng.pdf

[30] There is a slight difference in the approach taken to measuring this parameter by both commissions. The 13th commission used the per capita taxable state income and the distance of each state from the state with the highest. The 14th commission measured this based on the per capita Gross State Domestic Product (GSDP) and the distance between each state to that with the highest per capita GSDP.

[31] See page 94 of http://finmin.nic.in/14fincomm/14fcreng.pdf

[32] See for example https://www.youtube.com/watch?v=0L-SRYKWTmA

The report of the 14th Commission did recognize the importance of fiscal prudence and acknowledged the rationale for assigning it a significant weight in the 13th Commission's recommendations.[33] However, the current formula eliminates fiscal discipline as a parameter.

SUMMARY

The Indian formula has changed significantly over time. One constant has been the relatively high weight attached to fiscal capacity compared to other parameters. India's finance commissions have generally believed that compensating states with low fiscal capacity is a main purpose of the formula. This contrasts with Kenya, which has not put any significant weight on fiscal capacity in its own programs or resource sharing approaches. It is also notable that India has deemphasized fiscal discipline in its current formula, which is an area where many Kenyans believe there should be more weight. The attention given to population and land area suggests that India, like nearly all countries in the world including Kenya, puts weight on fiscal need as a key parameter in resource sharing. One weakness of the new Indian formula is that proper justifications are sometimes not given for certain choices. For example, the Finance Commission suggested that land area should be capped, but then did not cap it. This undermines the legitimacy of the process of decision making.

4.2 SOUTH AFRICA

Unlike India, South Africa's provincial revenue sharing approach mainly emphasizes fiscal needs, as demonstrated in Box 1 below. The parameters in the South African formula have not changed in recent years. However, the Division of Revenue Bill 2015 does indicate that the data used to measure the formula's parameters must be updated every year. This might change the relative shares for each province in a particular year. When it comes to measuring fiscal need, South Africa uses parameters that measure actual service needs, such as the number of school age children as a measure of education needs. This differs from India and Kenya which have tended to use population as a proxy for service need.

[33] See http://fincomindia.nic.in/ShowContentOne.aspx?id=28&Section=1

BOX 1: SOUTH AFRICAN REVENUE SHARING CRITERIA 2015[34]

For the 2015 Budget, the formula components are set out as follows:

- An *education component* (48 percent), based on the size of the school-age population (ages five to 17) and the number of learners (Grades R[?] to 12) enrolled in public ordinary schools.
- A *health component* (27 percent), based on each province's risk profile and health system case load
- A *basic component* (16 percent), derived from each province's share of the national population.
- An *institutional component* (5 percent), divided equally between the provinces
- A *poverty component* (3 percent), based on income data. This component reinforces the redistributive bias of the formula.
- An *economic output component* (1 percent), based on regional gross domestic product (GDP-R, measured by Statistics South Africa).

The South African formula has a basic component which is distributed based on the share of the population of each province to the national total. This is similar to the population parameter in the CRA formula. The weight assigned to the basic component is lower (16 percent) compared to the population weight in Kenya which makes up almost half of the total equitable share (45 percent).

However, in the Kenyan case population is the main proxy for the cost of delivering services, while in South Africa population is only used to complement two population-related service parameters. Taking the service parameters together with the basic component, the three take up 91 percent of funding to provinces. Thus population and population-related service indicators have a much higher weight in South Africa than in Kenya.

The institutional component of the South African criteria is similar to Kenya's basic equal share, which is also distributed equally among the subnational governments. However, the weight for the equal share in the CRA formula is five times that of South Africa. Equal share parameters are generally introduced to cater for fiscal needs that are identical across the units that are receiving the grants. In most cases, these aspects are administrative in nature. In the South African case, the funding under this component is meant to meet running costs and services that are not directly related to population. These might include the cost of the provincial headquarters, for example.[35]

[34] South Africa National Treasury, "Explanatory Memorandum to the Division of Revenue," 2015 Budget Review. (Page 19) http://www.treasury.gov.za/documents/national%20budget/2015/review/Annexure%20W1.pdf

[35] See page 22 http://www.treasury.gov.za/documents/national%20budget/2015/review/Annexure%20W1.pdf

The economic output component has a weight of 1 percent in the South African formula and is measured by the size of the province's GDP. This parameter gives more weight to provinces with higher GDP.

CONDITIONAL GRANTS

The South African division of revenue process has some conditional grants for services and capital projects. One of the conditional grants in South Africa is *the provincial roads maintenance grant* that was created in 2011/12. Allocations from this grant to the provinces are based on three factors:

1. Traffic volume (with special attention to roads supporting electricity generating infrastructure, such as coal mines).
2. Extent of road network in each province.
3. Climatic and topographical factors affecting the road network (such as risk of floods).

The three factors take into account the main drivers of need for road maintenance. This approach ensures that roads that need more maintenance get more money. A state that is more prone to harsh weather and flooding will require more money for maintenance compared to a road in a drier area.

This approach to distributing road maintenance differs with Kenya. 2015/16 saw the first conditional grant to counties in Kenya from the Road Maintenance Levy Fund (RMLF) to be used for road maintenance across the country. Part of this fund is to be used to maintain county roads. The CRA formula is used to distribute the fund among counties. This formula has no direct measures of road maintenance need. The CRA formula sends funds mainly to marginalized counties that do not have many roads.

SUMMARY

South Africa emphasizes fiscal needs in its main revenue sharing formula and in some of its conditional grants. There is a very small weight attached to other factors. The main difference between South Africa and India (as well as Kenya) is the attention given to sector-specific measures of need, rather than reliance on a population proxy. This means the formula distribution is more directly linked to population needs in education and health than in either India or Kenya.

5. CONCLUSION

This paper has reviewed principles of equity in resource distribution and then looked at practices in national government programs in Kenya, as well as revenue sharing approaches in India and South Africa. In this final section, we summarize our key findings:

- At the level of principle, there is widespread global and national acceptance that fiscal needs should be one of the main factors driving resource distribution. This emerges in most Kenyan programs and in global revenue sharing practices.

- While needs are widely accepted as a first principle, measuring needs in practice is challenging and many approaches to doing so in Kenya are not as well reasoned or equitable as they could be. Many programs use different approaches to measuring poverty and marginalization, not all of which are consistent or fair.

- Kenya tends to put inordinate weight on equality over equity. Some Kenyan programs ensure that a high share of funds are distributed equally across units, or that all units participate in national programs, even when this tends to downplay the very different needs of different units. This focus on equality stands out when compared to the low weight given to equal shares in South Africa and India. It also appears to be manifesting itself at the county level, where county assemblies have proposed allocating development funds on an equal basis across all wards.

- Little attention has been given to fiscal capacity or fiscal effort in Kenya, though these are given considerable weight in India. A fair distribution of revenue may require further thinking about these other principles, as well as principles of efficiency, minimum shares, and fair process.

As policymakers at national and county level consider how best to share resources in line with the spirit of the constitution, it is useful to take stock of how existing practices stack up against widely accepted principles. This will allow policymakers to avoid some of the errors of the past and to ask the right questions from the start.