Sharing Public Resources Within Counties in Kenya

How Fair Are Emerging Approaches?

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Paper

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1. INTRODUCTION

In 2010, Kenya began an ambitious devolution process, with administrative, financial, and political power moving simultaneously from the national level to 47 new counties. One of the main drivers of devolution was the glaring inequities between different parts of the country. Supporters of devolution believed that shifting the management of service delivery to lower levels would help accelerate development. One of the mechanisms for ensuring this was that local priorities would be funded each year through county budgets, decided upon locally, rather than through budget decisions made in Nairobi.

Devolving resources and functions from the national level to counties can theoretically help to address regional inequality. However, inequality often remains a challenge after decentralization.[1] Why is this? While devolution has a role to play in reducing regional inequality, public policy must also explicitly address inequality in devolved units. First, even in highly decentralized countries, not all goods and services are devolved to the lowest levels. Many public goods, including security and regional/national infrastructure, actually serve regions and cannot be funded or managed at the lowest level. Even services that can be devolved, such as health, are usually not devolved all the way to, say, the village level, because it is not efficient to do so. Thus even in decentralized countries, many services that have an impact on inequality are not fully devolved.

Second, devolution of services in a context of unequal physical and human capital can exacerbate inequalities unless there is a deliberate effort to redistribute resources across the subregions, bringing all of them to similar levels of access. In the absence of redistribution, some devolved units with greater endowments of capital at the outset of devolution are likely to race ahead of others.

Third, inequality within devolved units may be severe, especially where decentralization does not mean giving full financial autonomy to villages or other very small units. In many countries in the world, from India to Mexico to South Africa, the inequalities within subnational units (such as states and provinces, but even districts and municipalities) are extreme. Decentralization *per se* does nothing to address these particular types of inequalities. This is a particular concern for counties in Kenya, which are relatively large and diverse in geographical and population terms.

This third challenge is the focus of our analysis here. While much discussion of resource sharing in Kenya has centred on how to reduce inter-county inequalities, inequalities below the county level are actually more severe. Official data shows that the range of poverty rates across counties is four to one: the share

[1] See http://www.ieb.ub.edu/aplicacio/fitxers/WS11Lessmann.pdf

of poor people in Turkana County (87.5 percent) is four times the share of poor people in Nairobi County (21.8 percent).[2] As we move to the constituency level, the range increases to nine to one, and the ward with the highest share of poor people (Katilia Ward in Turkana County) has a poverty rate of 99 percent, 30 times that of the ward with the least share of poor people (Lower Savannah Ward in Nairobi),three percent. This shows that the discussion about marginalization and inequality in Kenya cannot be confined to the inter-county level, but must consider what happens within counties as well.

How much inequality is there within a single county? Let's take the example of Nairobi County. Table 1 shows the richest and poorest wards in the county based on two parameters, the poverty rate and the absolute number of poor people in each ward. Using the poverty rate, the range between Hospital Ward and Lower Savanna is 17:1. Thus, at county level, Turkana has a poverty rate 4 times higher than Nairobi, but within Nairobi, the ward with the highest poverty rate is seventeen times poorer than the ward with the lowest poverty rate. The disparity is somewhat smaller when we allow for the differences in population of the wards: in absolute terms, Hospital Ward has 11 times as many poor people as Lower Savanna. Nevertheless, this is a marker of significant inequalities within a single county.

TABLE 1. RICHEST AND POOREST WARDS BASED ON POVERTY RATES AND NUMBER OF POOR

Wards	Poverty rates (%)	Population	Actual number of poor people
Hospital	57.1	19,823	11,321
Mabatini	53.0	28,221	14,954
Korogocho	50.7	41,915	21,269
Laini Saba	47.8	28,172	13,475
Mlango Kubwa	47.3	38,135	18,036
Komarock	5.7	35,571	2,029
Kilimani	5.7	38,296	2,181
Umoja I	5.6	47,721	2,683
Maringo/Hamza	5.6	51,787	2,885
Lower Savanna	3.3	30,633	1,022

Source: Kenya National Bureau of Statistics

If devolution is to lead to greater equity within counties, this will have to happen in part through the equitable allocation of resources in county budgets. The annual budget process is where decisions are made about which services are prioritized in a given year. It is the main opportunity to reallocate resources to close gaps between those parts of the county with better access to services and those without.

[2] See http://www.knbs.or.ke/index.php?option=com_phocadownload&view=category&download=616:exploring-kenya-inequality-national-report&id=114:exploring-kenya-s-inequality&Itemid=599

This analysis builds on a companion paper that looks at how Kenya has tackled inequality in social programs and transfers at the national level.[3] In this paper, we ask how counties are managing these challenges at the intra-county level. As in that paper, we begin with a brief review of principles. We discuss those principles in greater detail in the companion paper. We then look at three counties: Elgeyo Marakwet, Meru, and Baringo. We ask how they have tackled the issue of resource sharing at the county level. We point out some of the strengths and weaknesses of these approaches and conclude with some recommendations.

2. PRINCIPLES

The concept of equity starts from the premise that all citizens are entitled to certain basic services and that people's needs differ based on their position in society. Unlike equality, equity recognizes that treating different people in the same way may be unfair. Because different people have different needs and capabilities, equity demands different treatment.

By way of introduction, we briefly review principles here that we have elaborated elsewhere. For more on these, however, the footnotes provide references.[4] Perhaps the most universally accepted principle of fairness is that those with higher needs should receive more support. Needs may be driven by population size (for ongoing service costs), well-being (sicker populations need more health care) or historical inequities (areas that were marginalized in the past need to catch up today). A second principle is capacity: people/areas that have low fiscal capacity (ability to generate their own revenues) might require more resources to be able to deliver basic services. Third is that those people or agencies who show more fiscal effort should also be fiscally rewarded as a way to encourage greater collections and use of available resources. There is also an argument that more should be invested in areas/people that are more efficient and able to generate more goods and services for the good of all (though this always raises questions of how to ensure that all do truly benefit). Lastly, despite the size of the allocations that areas might receive based on these other principles, a final basic minimum share principle suggests that everyone deserves at least something from pooled resources even if they don't get any allocation based on the other parameters used for distribution. Beyond the substantive principles, there is also a growing

[3] Jason Lakin and John Kinuthia, "A Fair Share of the Budget: Principles and Practices in Public Resource Distribution in Kenya," International Budget Partnership, 2016. http://www.internationalbudget.org/wp-content/uploads/ibp-kenya-paper-principles-and-practices-in-public-resource-distribution-8-2016.pdf

[4] Jason Lakin and John Kinuthia, "What is Fair? Sharing Resources in Kenya," International Budget Partnership, 2013. http://www.internationalbudget.org/wp-content/uploads/IBP-Budget-Brief-18A-Final-Printer.pdf; Jason Lakin and John Kinuthia, "Fair Play: Inequality Across Kenya's Counties and What It Means for Revenue Sharing," International Budget Partnership, 2013. http://www.internationalbudget.org/wp-content/uploads/IBP-Budget-Brief-18B-Final.pdf; Jason Lakin and John Kinuthia, "A Fair Share of the Budget: Principles and Practices in Public Resource Distribution in Kenya," International Budget Partnership, 2016. http://www.internationalbudget.org/wp-content/uploads/ibp-kenya-paper-principles-and-practices-in-public-resource-distribution-8-2016.pdf

consensus that a fair process for balancing these competing principles is also necessary. An open and transparent process is a fair way to ensure outcomes are seen as fair.

While principles are a critical foundation for decision making about resource sharing, they are often challenging to implement in practice.

Consider two hypothetical wards: Simba and Batian. These two wards are in the same county, Teleki. Assume that the total population of Simba is 20,000 while Batian is inhabited by 1,000 people. Half of Simba's population has access to clean water compared to only 10 percent in Batian ward. This means 10,000 people in Simba and 900 people in Batian lack access to clean water. Let's assume that it takes Ksh 1 to supply clean water to one person, and that Teleki has allocated a total of Ksh 5,000 in this year's budget to supply water. What is the fairest way to share this money between the two wards?

2.1 OPTION 1: RELATIVE SHARES

One way to think about this is to share it as a proportion of the need in the two wards. The total number of people in need of clean water in both wards is 10,900 people. Simba contributes 92 percent of this number and Batian takes up the remaining 8 percent. If these shares are applied to the available resources, then Simba will take Ksh 4,587 and Batian will get Ksh 413. So we end up giving Simba more money because it has a larger population that needs clean water. Is this a fair way to share resources among the two wards?

2.2 OPTION 2: EQUAL SHARES

What if we shared the available money equally? Each ward would get Ksh 2,500, which means Simba would meet the water needs of one quarter of its residents without clean water. Meanwhile, Batian would be able to meet the needs of all the people without clean water, and remain with excess cash.

2.3 OPTION 3: MEETING THE NEEDS OF AT LEAST ONE WARD

Another option is to give Batian Ksh 900 to meet the full needs of its remaining population then give the remaining Ksh 4,100 to Simba, though this will cover less than half of its needs.

TABLE 2. WHAT IS FAIR? ALTERNATIVE APPROACHES TO SHARING AMONG WARDS

Sharable revenue – Ksh 5,000	**Initial status**			**Option 1- Available revenue is shared based on share of people without access to water**		
Wards	*Population*	*People without access to water*	*% share of people without access to water*	*Revenue (Ksh)*	*Remaining people without access to water*	*% people without water after sharing*
Simba	20,000	10,000	50%	4,587	5,413	27%
Batian	1,000	900	90%	413	487	49%
Total	***21,000***	***10,900***	***52%***	***5,000***	***5,900***	***28%***
	Option 2- Available resources are shared equally			**Option 3- Revenue is shared in a way it meets the needs of Batian ward first**		
Wards	*Revenue (Ksh)*	*Remaining people without access to water*	*% people without water after sharing*	*Revenue (Ksh)*	*People without water after sharing*	*% people without water after sharing*
Simba	2,500	7,500	38%	4,100	5,900	30%
Batian	2,500	-	0%	900	-	0%
Total	***5,000***	***7,500***	***36%***	***5,000***	***5,900***	***28%***

Which of these approaches is fairest? Reasonable people might disagree about which option is best. However, most people would agree that we should take into consideration the different needs of the two wards when making that decision.

Even if someone believed that the second option of equal shares was the best, they would need to defend that decision on the basis of the facts about water access in the two wards. The second option is problematic as it gives more money than is needed to one of the wards, while the other ward's needs are not met. A possible rejoinder to this is that Batian may have additional challenges that cannot be met with the available resources. It could use its surplus in water to meet these needs. This is in fact a common argument for giving equal shares: every region has problems, so they should be given an equal amount to solve those problems any way they see fit. However, the idea that every region has "problems" does not mean that every region's problems are of the same severity. Thus the second option requires further discussion about the overall profile of the two wards, which again means we must take into consideration relative needs and other factors.

Fair approaches to sharing resources must be defensible in terms of principles of equity and facts about the characteristics of the regions receiving funds. They must also be publicly defended so that the public can actually deliberate on them.

3. INSPIRATIONS FOR COUNTY REVENUE SHARING MECHANISMS

In this section of the paper, we look at available documentation from a number of counties to understand how they have been thinking about equity in the distribution of resources at the subcounty level. We draw on plans, budgets, and legislation for these examples.

While counties have different objectives in distributing resources to their wards through the budget, there is a common thread that cuts across most of them. Counties have adopted two main approaches borrowed from national institutions. We discuss these mechanisms below.

3.1 CRA FORMULA ON HOW TO DISTRIBUTE THE EQUITABLE SHARE

A number of counties have drawn on or fully adopted the Commission on Revenue Allocation's (CRA) formula for distributing funds to counties. This formula was recently revised by the Senate in 2016, but counties have thus far drawn on the formula adopted in 2012, which is discussed here. The table below shows the parameters of the 2012 CRA formula and the weights assigned to each.

TABLE 3. THE CRA REVENUE SHARING FORMULA (2012-2016)

Parameter	Weight
Population	45%
Basic equal share	25%
Poverty	20%
Land area	8%
Fiscal responsibility	2%
Total	***100%***

How does this formula distribute revenue among the counties? In general, the county's share of each parameter determines its share of funds. For example, for population, 45 percent of all the money for counties is set aside to be distributed using population. Then, a county's population as a share of the total national population determines its share of these population funds. For example, if 10 percent of the national population lives in one county, then that county would receive 10 percent of the 45 percent available for population.

For poverty, the formula looks at the number of poor people in a county as a share of all the poor people in Kenya, and combines this with the poverty gap, which is a measure of how far below the poverty line each poor person is. The land area covered by each county as a proportion of the total land area determines the amount of money they get from the resources allocated under that parameter. There is also a basic equal share that gives an equal amount of money to each county to cover certain basic running costs that are similar across all counties. During this initial period of devolution, there was no data that could be used for the fiscal responsibility parameter because counties were yet to demonstrate the quality of their financial management, so this amount (2 percent of total funds) was shared equally as well.

The formula's weights are mainly focused on fiscal need. The first four parameters, accounting for 98 out of 100 percentage points, fall into this category. The formula looks at both aspects of need we discussed above; for example, population and land area try to ensure that each county gets adequate funds to provide the services counties are to provide, but poverty plays a redistributive function by giving more to counties that are marginalized.[5]

The formula does not put emphasis on other principles, such as capacity or effort, though theoretically fiscal responsibility could eventually be a measure of effort. The high basic equal share ensures the basic needs of all counties are catered for and each county receives a certain minimum allocation. We have shown elsewhere, however, that the basic equal share is too high to serve this purpose and that it actually redistributes funds toward smaller counties without a sound basis.[6]

3.2 THE NATIONAL GOVERNMENT CONSTITUENCY DEVELOPMENT FUND

The Constituency Development Fund (CDF) takes into account two key measures in its distribution of resources among the constituencies. CDF mainly emphasizes equality, with 75 percent of the fund shared equally among the 290 constituencies. The remaining 25 percent of the funds do factor in equity, as they are based on the poor people in each constituency. Poverty is a proxy of need within a geographical region and might give a picture of demand for services.

There are some logical gaps in the formula for CDF. While the 75 percent equal share may be seen as emphasizing equality over equity, it actually falls short of the standards of equality. CDF is distributed equally at the unit level, not in per capita terms. Given that constituencies vary considerably in size; this can actually be seen as profoundly unequal. For example, Mandera South constituency with the highest

[5] It could be argued that poverty is actually a measure of capacity, but that is not the argument that has been made by CRA, and capacity is better measured by the overall wealth of the county, not just the number of poor.
[6] See http://www.internationalbudget.org/publications/budget-brief-no-32-kenya-how-much-does-it-cost-to-run-a-county/

population (247,619) has a per capita allocation of Ksh 785, while the constituency with the lowest population, Lamu East (18,841), has a per capita allocation of Ksh 4,784. When looking at the 25 percent poverty share, a different concern arises. While poverty is a proxy for service need, CDF is mainly for capital expenditure and poverty does not directly measure the capital needs in a constituency. It might be better to measure such needs more directly through measures of health facility or school facility access.

In spite of the gaps in both the revenue sharing formula and the CDF formula, they have served as models for the counties. Most counties that have made efforts to come up with policies for sharing resources have borrowed partly or wholly from these two mechanisms. We look at several county examples below.

4. HOW ARE COUNTIES ACTUALLY SHARING REVENUE?

4.1 ELGEYO MARAKWET COUNTY'S EQUITABLE DEVELOPMENT ACT 2015

The County Equitable Development Act (EDA) 2015 states that its main objective is to promote equitable development across all wards in the county. According to the Act, 60 percent of all development expenditure appropriated for each department shall be shared equally among all the 20 wards. The remaining 40 percent is to be shared equitably among the wards based on a formula whose parameters are given in the Act, as shown in Table 4 below. The EDA formula borrows heavily from the CRA formula at the national level, utilizing four of its five parameters: population, poverty, land area, and fiscal responsibility.

TABLE 4. PARAMETERS USED TO SHARE REVENUE AMONG WARDS IN ELGEYO-MARAKWET COUNTY

Parameters	Weights
Population	38%
County flagship projects	23%
Poverty index	22%
Land area	8%
Emergencies	5%
Fiscal responsibility	2%
Arid and semi-arid areas	2%

Source: The County Equitable Development Act, Elgeyo Marakwet County

The County Annual Development Plan (ADP) for 2016/17 gives details of how these parameters in the Act are applied. The first thing to note is that 23 percent of the fund is actually not distributed to wards, but set aside for flagship projects. The Act defines flagship projects as county projects in the approved County Integrated Development Plan (CIDP). These are projects that benefit multiple wards.

The population parameter operates in the same way as the CRA formula. First, 38 percent of all the shareable funds are set aside to be distributed based on population. Then, the share of the total population of the county that lives in a particular ward determines the funds it receives. The poverty parameter awards 22 percent of the available funds to a ward based on that ward's share of all the poor people in the county.[7] The land area parameter works in the same way. Lastly, the weights for arid and semi-arid areas in the county will be assigned based on a ward's share of arid land area as a proportion of the total arid area in the county.

The CRA formula is designed to allocate funds for all county functions and responsibilities. In contrast, the Elgeyo Marakwet formula only allocates the capital expenditure part of the budget but the parameters do not directly measure capital needs at ward level.

There are some differences with the CRA formula that are important to note. The weights assigned to some of the parameters appear more redistributive compared to the CRA formula. For example, the population weight is lower and the poverty weight is slightly higher.

While the county wants to take into account fiscal effort using the fiscal responsibility parameter, measuring fiscal effort at ward level has proved challenging, because wards do not collect or manage finances separately from counties. It is not clear what the emergency parameter is designed to do that would not be done by an emergency fund at the county level (rather than the ward level). In practice, the government decided not to distribute the money under these two parameter as per the formula in 2016/17. Instead, it added the 7 percentage points here to the allocation for county flagship projects, increasing the share for county projects to 30 percent.

Our analysis shows that the final allocations for each ward in the approved budget are significantly different from calculations based on the formula as shown in Table 5 below. We simulated the EDA formula using the 2016/17 development budget and compared to the ward allocations in the actual budget. The figures in the actual budget show that the allocation for the equal share has been

[7] The county adjusted the population of a number of wards (Kamariny,Kapchetumwo,Kapsowar,Kaptarakwa and Kapyego) due to what it termed as errors in wards boundaries, which automatically changed the number of poor people in these wards as well. For this reason, the figures for population and poverty vary from Kenya National Bureau of Statistics figures.

substantially reduced relative to what the EDA formula demands (36 percent, down from 60 percent as per the EDA). The reduction in the equal share appears to be the result of a desire to allocate more money to county priority projects which are not ward specific.

One implication of this is that applying a formula to distribute development funds to wards should probably not apply to the entire development budget, as it does in the Elgeyo Marakwet EDA. This does not leave enough funding for cross-cutting projects. Furthermore, if we are going to allocate funds to wards, more emphasis should be put on equitable distribution than is the case in the original EDA. The difference between the EDA and the actual allocations shows that the share of funds going to the equitable share remains the same, but the share of equal share has come down while the amount for county projects, excluding conditional grants, has more than doubled.

Lastly, while Elgeyo Marakwet County may have good reasons for making this adjustment to the weight attached to the equal share, details of these changes are not given in the budget or even in the earlier allocations in the ADP. This tends to undermine the transparency of using a formula in the first place, and makes it difficult for ordinary citizens to understand how funds are actually being distributed. It is also important for public education that people are able to understand the importance and cost of cross-cutting projects (those not specific to particular wards). The way the formula is applied is unnecessarily complex, in part resulting from the way the law is drafted. For example, it would be easier to understand how the law is implemented if the formula did not apply to conditional grants or to county flagship projects. Both of these could be removed from the total development budget before the formula is applied.

TABLE 5. IBPK EDA SIMULATIONS VERSUS ACTUAL ALLOCATIONS IN ELGEYO MARAKWET BUDGET: MODIFYING THE FORMULA TO REDUCE THE EQUAL SHARE

	Calculation Based on EDA 2016/17			**Actual County Allocations 2016/17**		
Ward	*Equal Allocation (Ksh)*	*Equitable Share (Ksh)*	*Total (Ksh)*	*Equal Allocation (Ksh)*	*Equitable Share (Ksh)*	*Total (Ksh)*
Arror	38,175,844	8,301,384	46,477,228	22,861,473	8,301,384	31,162,857
Chepkorio	38,175,844	18,217,604	56,393,448	22,861,473	18,217,604	41,079,076
Cherangany/Chebororwa	38,175,844	16,967,851	55,143,695	22,861,473	16,967,851	39,829,324
Embobut	38,175,844	20,379,824	58,555,668	22,861,473	20,379,824	43,241,297
Emsoo	38,175,844	10,008,206	48,184,050	22,861,473	10,008,206	32,869,679
Endo	38,175,844	24,880,559	63,056,403	22,861,473	24,880,559	47,742,031
Kabiemit	38,175,844	15,998,633	54,174,477	22,861,473	15,998,633	38,860,106
Kamariny	38,175,844	17,205,759	55,381,603	22,861,473	17,205,759	40,067,232
Kapchemutwo	38,175,844	14,124,510	52,300,354	22,861,473	14,124,510	36,985,983
Kapsowar	38,175,844	17,189,833	55,365,677	22,861,473	17,189,833	40,051,305
Kaptarakwa	38,175,844	22,028,362	60,204,206	22,861,473	22,028,362	44,889,834
Kapyego	38,175,844	22,766,722	60,942,566	22,861,473	22,766,722	45,628,195
Lelan	38,175,844	17,947,560	56,123,405	22,861,473	17,947,560	40,809,033
Metkei	38,175,844	11,015,367	49,191,211	22,861,473	11,015,367	33,876,839
Moiben/Kuserwo	38,175,844	17,670,687	55,846,531	22,861,473	17,670,687	40,532,159
Sambirir	38,175,844	22,007,849	60,183,694	22,861,473	22,007,849	44,869,322
Sengwer	38,175,844	19,506,511	57,682,356	22,861,473	19,506,511	42,367,984
Soy North	38,175,844	18,483,600	56,659,444	22,861,473	18,483,600	41,345,072
Soy South	38,175,844	24,150,506	62,326,350	22,861,473	24,150,506	47,011,979
Tambach	38,175,844	17,456,553	55,632,397	22,861,473	17,456,553	40,318,025
Sub-Total for Ward Allocations	763,516,885	356,307,879	1,119,824,764	457,229,453	356,307,879	813,537,332
County Projects			152,703,377			337,437,524
Conditional Grants			121,553,285			121,553,285
Total			***1,272,528,141***			***1,272,528,141***
% Shared Equally	60%			36%		

Source: Authors' calculations, EMC ADP and Approved Budget 2016/17

The act creates Ward Development Committees which are led by the Members of the County Assembly in each ward as ex-officio members who also have a vote like the other members. In addition, there are members representing different interest groups in the county such as women, youth, business community, nongovernmental organizations, people living with disabilities, and religious organizations. The ward administrators are the secretaries to these committees. Each committee shall coordinate all matters of development in the ward and it shall be the intermediary between the county government and the citizens of the ward on all matters of development. The development committees may also invite not more than three additional people who are specialists in certain fields to help them in their work.

5. ASSESSING THE ACT AGAINST THE PRINCIPLES OF EQUITY

5.1 NEED

From the act, it is not clear why such a huge proportion of the development budget in each department (60 percent) is shared equally among wards. It is not generally equitable to treat regions that are different in the same way. In thinking about capital investment, it is not clear that wards have almost similar capital needs or that the costs of meeting these needs is the same. The formula does not take into consideration any direct measure of infrastructure gaps among the wards. This suggests that it does not measure need as well as it might, given that, unlike the CRA formula on which it is modeled, it is focused on infrastructure needs exclusively.

Population is a good proxy of need and the higher the population in a ward, the higher the service needs and the greater the pressure on infrastructure. However, population is weighted relatively low and the high equal share means that per capita figures vary widely in ways that may not reflect true differences in need, as is the case with CDF discussed earlier.

When it comes to poverty, each ward's poverty weight is measured by the actual number of poor people who live in the county and how many live in each ward. However, this does not take into account the severity of poverty across the wards as the Commission for Revenue Allocation does by using the poverty gap.

The parameter on land area distributes money based on a ward's share of the county's total area. The size of a ward is a factor in the cost of capital expenditure. For example, distribution of piped water will cost more in a large ward due to the distance covered by the piping systems. However, this assumes that all parts of a larger ward are inhabited and require infrastructure, which may or may not be the case. Land area is a measure of need, but it is not perfect.

The formula also takes into consideration sparsely populated areas already by awarding them an extra two percentage point weight. According to the Elgeyo Marakwet County Assembly Hansard, the arid and semi-arid lands (ASAL) parameter was carved out of the population parameter after the public asked that the formula pay more attention to arid wards with low population[8]. This might be fair, but if large areas are sparsely populated, they will benefit twice from the land area and ASAL weights.

Fiscal responsibility is a measure of effort that is meant to encourage financial prudence in the use of public funds. Is this parameter sensible when allocating money among wards? While money is spent on ward projects, the spending units remain the county departments as wards have no financial autonomy. How do we measure fiscal responsibility at the ward level when wards are not the spending units?[9]

For purposes of illustration, we consider whether the allocation derived from the EDA would be equitable in a specific sector. The law first distributes funds to sectors and then each must apply the formula. This is therefore a fair test.

The table below shows the share of water funding allocated to each ward in the approved 2016/17 county budget and the level of inequality in access to water in each ward. It is clear that the formula does not distribute the most funding to the wards with the greatest needs. For example, Endo ward has the largest share of people without access to improved water sources in the county at 9 percent, but is receiving only 5 percent of the allocations to the sector. On the other hand, Emsoo ward has only 2 percent of the people in the county without improved access to water but is receiving 5 percent of the resources for water.

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8 See http://www.emca.or.ke/hansard/downloadfile/data/147th%20Sitting,%20Wednesday,%208th,%20October,%209.00a.pdf

9 Theoretically, there are ways that this might be done. For example, there is data available on collections by ward or subcounty in many counties. While the efforts of collection officers reflect the county's overall performance rather than that of the subcounty or ward, it is possible that certain parts of the county make more of an effort to collect revenue. One way of assessing this would be to use matching funds for specific projects at ward level, where communities would have to raise a certain share of the funding themselves or put in "sweat equity" to project implementation. Those communities willing to do this would receive matching funds while those not willing would be left out. This is one way of assessing effort, though it does not work well through a general revenue sharing formula but rather as a special grant.

TABLE 6. EXAMPLE OF CAPITAL EXPENDITURE DISTRIBUTION FOR THE WATER, ENVIRONMENT, AND NATURAL RESOURCES SECTOR UNDER EDA AGAINST WARD ACCESS TO IMPROVED WATER

Ward	Unimproved Sources (KNBS)	Ward Population (KNBS)	Ward Share of County Population	Ward Population with Unimproved Sources of Water	Ward Allocation for the Water, Environment and Natural Resources Department (EMC County Budget 2016/17) (Ksh)	Share of County Population with Unimproved Sources of Water	Ward Share of the Total Allocations to the Department
Endo	91%	21,619	6%	21,462	9,700,000	9%	6%
Kapchemutwo	61%	19,069	5%	15,275	5,500,000	6%	3%
Sambirir	66%	21,585	6%	14,959	9,983,500	6%	6%
Embobut	98%	18,488	5%	14,763	7,000,000	6%	4%
Kapyego	84%	25,057	7%	14,329	10,800,000	6%	6%
Moiben/Kuserwo	74%	19,277	5%	14,142	10,100,000	6%	6%
Kapsowar	76%	17,057	5%	14,023	10,200,000	6%	6%
Soy South	69%	20,370	6%	13,910	8,143,159	6%	5%
Lelan	68%	20,111	5%	13,626	10,550,000	6%	6%
Sengwer	70%	18,903	5%	13,192	9,800,000	6%	6%
Cherangany/Cheborowa	67%	18,172	5%	12,207	10,000,000	5%	6%
Metkei	78%	12,945	3%	10,025	6,291,858	4%	4%
Chepkorio	39%	23,349	6%	8,975	8,527,995	4%	5%
Kamariny	35%	23,126	6%	8,835	10,427,543	4%	6%
Kabiemit	44%	18,970	5%	8,374	8,775,734	4%	5%
Tambach	49%	15,930	4%	7,552	8,700,000	3%	5%
Soy North	51%	14,457	4%	7,398	9,412,466	3%	5%
Kaptarakwa	32%	25,423	7%	7,218	3,829,110	3%	2%
Arror	94%	6,488	2%	6,054	10,414,962	3%	6%
Emsoo	57%	9,602	3%	5,500	7,930,499	2%	5%
TOTAL	***65%***	***369,998***	***100%***	***239,065***	***176,086,826***	***100%***	***100%***

Sources: Population and water access (Population and Housing Census 2009), Ward Allocation calculated from the 2016/17 County Budget Estimates

One of the main objectives of the act is to ensure that there is equitable development within the county. The use of the poverty parameter does imply a redistributive objective for the formula, in line with the second approach to need discussed above. Once again, however, the lack of specific measures of the infrastructure gaps facing different wards potentially limits the effectiveness and fairness of redistribution.

5.2 MANAGEMENT STRUCTURE

The composition of the ward development committees looks very similar to that of the County Budget and Economic Forum (CBEF) created by the Public Finance Management Act 2012, except that CBEF does not incorporate Members of the County Assembly. The Act does not acknowledge the CBEF or explain the link between these ward committees and the forum. Is this act creating a parallel body that will duplicate the role of one already created in a national law?

5.3 IMPROVING ELGEYO MARAKWET'S APPROACH TO EQUITY

The EDA formula could be improved by focusing more on equity than equality. It could also attempt to measure infrastructure deficits among the wards better. While data might not be available for all the parameters, there is some data to start measuring some of them and population can be maintained at some reasonable weight as a proxy for infrastructure gaps for which there is no data.

The PFM Act encourages counties to create emergency funds and Elgeyo Marakwet should do so. There is no obvious reason why the emergency fund should be part of the Equitable Development Act.

5.4 BARINGO COUNTY'S WARD DEVELOPMENT FUND

Baringo's County Ward Development Fund Act, 2014 requires the county government to allocate at least 10 percent of the approved development budget each year to the Ward Development Fund. [10] The Act adopts the CRA parameters in a given year as the mechanism to distribute the funds among the 30 wards in the county. [11]

[10] See http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/BaringoCountyWardsDevelopmentFundAct2014.pdf

[11] Baringo County Ward Development Fund Act, 7(1a): http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/BaringoCountyWardsDevelopmentFundAct2014.pdf

It is not clear from the language in the act if the parameters will be applied in precisely the same way as they are applied in the CRA formula:

> "7. (1) The functions of the County Management Board shall be to—
>
> (a) Ensure allocation and disbursement of funds in every ward using parameters of commission on revenue allocation (C.R.A);"[12]

In addition, another section of the Act seems to give different criteria for how money in the fund should be shared among the wards.[13] Most of the funds (85 percent) will be shared equally among the wards, while the remaining 15 percent is then shared based on the ward share of the county population. It is not clear why the same act seems to have two sets of criteria on how to share funds. The county seems to want to borrow from both the CRA formula and the CDF approach:

> "26.(1) The budget ceiling, for each ward shall be—
>
> (a) Eighty five percent of the amount specified in section 4(2) (a) divided equally among all the wards
>
> (b) Fifteen percent of the amount specified in section 4(2) (a) divided by the population in the County multiplied by the number of inhabitants in that Ward as per the last national population census."[14]

The fund is run by a County Ward Development Fund Board which shall be chaired by the CEC for Finance. The act is specific that the Chief Officer from the Transport and Infrastructure department/ministry should sit on the board. The act seems to indicate that the other members should be from both arms of the county government, but should be technical persons with qualifications in certain fields, such as engineering and community development. There are no elected officials. All the members appointed by the County Executive Committee Member for Finance will have to be approved by the

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[12] Baringo County Ward Development Fund Act, 7(1a): http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/BaringoCountyWardsDevelopmentFundAct2014.pdf

[13] Baringo County Ward Development Fund Act, 26(1): http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/BaringoCountyWardsDevelopmentFundAct2014.pdf

[14] Baringo County Ward Development Fund Act, 26(1): http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/BaringoCountyWardsDevelopmentFundAct2014.pdf

County Assembly to serve in the board. However, the fund administrator shall be appointed by the County Public Service Board.

6. ASSESSING THE ACT AGAINST THE PRINCIPLES

We can ask similar questions of the criteria used to distribute the ward development fund in Baringo as we did in Elgeyo Marakwet. While the proportion of the budget to be shared is much smaller in Baringo, the parameters of the CRA formula do not match the objectives of the fund. Except for poverty, the parameters in the CRA formula do not address historical gaps in development across the wards. The CRA formula is therefore not in line with the fund's objective, which is to improve development through equitable capital expenditure across the wards. As we emphasized above, the CRA formula was not developed to distribute development funds alone.

We do not have details of how the parameters in the CRA formula are measured in the Baringo case as we do for Elgeyo Marakwet. Baringo County has not given any information on how the CRA formula would be applied to distribute the Ward Development Fund. However, we run a scenario based on available data using the current CRA parameter weights and application (see annex 1). On the other hand, the second criteria in the law is much easier to apply. This law has not been implemented but it gives a window into the thinking about fairness in resource distribution within the county of Baringo.

The Ward Development Fund takes up 10 percent of the development budget, and the rest of the development budget is implemented by the departments directly through their budgets as approved by the assembly. In the proposed 2016/17 budget, the total development budget is Ksh 2.5 billion and therefore the fund would receive Ksh 251 million. We look at how this amount could be distributed below.

Table 7 is a simulation where 15 percent of the fund is shared based on the population in each ward, and the rest is shared equally among all the wards in Baringo County. The large proportion of the funds distributed equally means that the final allocation to each ward is almost equal. As shown in Table 7, almost all the wards receive about three percent of the fund with the exception of three wards that get four percent each. How fair is this allocation? The inequalities that exists among all the wards is useful in answering that question. While we do not have data that can fully tell us the level of inequality among these wards, we can use one sector to give us a sense of the relationship between spending and inequality.

Let us use the example of inequality in access to water again as an illustration to see how fair Baringo's sharing mechanism would be. The share of people with no access to improved sources of water across wards has a far wider range than our range of allocations. The share of the total county population with no access to improved water sources ranges from 0.6 percent in Ravine ward to 5.6 percent in Mochongoi ward. A criterion that distributes revenue almost equally between the two wards would do little to address such inequalities. To the contrary, it ensures that the distribution is not need-based. From the example, Muchongoi ward has nine times as many people without access to water as Ravine, but Muchongoi receives almost an equal amount of money as Ravine from the fund as shown in Table 7. Of course, the Baringo funds would not only fund water services, but this helps show why a highly equalizing formula may not address the differences in access across wards. In this sense, at least, using the CRA formula approach, as we show in the annex, does produce a wider range of allocations somewhat more sensitive to differences across wards.

TABLE 7. WARD ALLOCATIONS AND WATER ACCESS PER WARD, BARINGO COUNTY SIMULATION USING 85 PERCENT EQUAL SHARE AND 15 PERCENT POPULATION WEIGHT

Ward Development Fund	Population	Basic Equal share	Share Based on Population	Total Allocations	Ward Share of the Total Allocations	Unimproved Water Sources	Number of Individuals with Unimproved Sources of Water	Share of County Population with Unimproved Sources of Water
Mochongoi	27,644	7,120,627	1,899,456	9,020,083	4%	86%	23,670	5.6%
Tirioko	23,561	7,120,627	1,618,908	8,739,535	3%	95%	22,455	5.3%
Silale	21,804	7,120,627	1,498,182	8,618,809	3%	100%	21,767	5.2%
Barwessa	23,938	7,120,627	1,644,812	8,765,439	3%	90%	21,502	5.1%
Mogotio	27,016	7,120,627	1,856,305	8,976,933	4%	77%	20,815	5.0%
Saimo/Kipsaram	20,916	7,120,627	1,437,166	8,557,794	3%	92%	19,279	4.6%
Churo/Amaya	21,187	7,120,627	1,455,787	8,576,414	3%	86%	18,166	4.3%
Marigat	27,242	7,120,627	1,871,834	8,992,461	4%	63%	17,173	4.1%
Kollowa	19,364	7,120,627	1,330,526	8,451,154	3%	84%	16,356	3.9%
Tangulbei/Korossi	18,352	7,120,627	1,260,990	8,381,618	3%	86%	15,750	3.8%
Emining	16,501	7,120,627	1,133,806	8,254,433	3%	93%	15,384	3.7%
Lembus	21,036	7,120,627	1,445,412	8,566,039	3%	71%	14,919	3.6%
Ewalel/Chapchap	16,349	7,120,627	1,123,362	8,243,989	3%	88%	14,338	3.4%
Kabarnet	22,370	7,120,627	1,537,072	8,657,700	3%	63%	14,020	3.3%
Saimo/Soi	17,668	7,120,627	1,213,992	8,334,619	3%	77%	13,524	3.2%
Kabartonjo	19,038	7,120,627	1,308,126	8,428,754	3%	71%	13,500	3.2%
Kisanana	16,619	7,120,627	1,141,914	8,262,541	3%	81%	13,446	3.2%
Mumberes/Maji Mazuri	18,840	7,120,627	1,294,521	8,415,149	3%	68%	12,743	3.0%
Sacho	14,577	7,120,627	1,001,605	8,122,233	3%	84%	12,271	2.9%
Ilchamus	15,903	7,120,627	1,092,716	8,213,344	3%	76%	12,089	2.9%
Ribkwo	14,433	7,120,627	991,711	8,112,338	3%	83%	11,936	2.8%
Loiyamorok	13,369	7,120,627	918,602	8,039,229	3%	88%	11,731	2.8%
Bartabwa	11,823	7,120,627	812,374	7,933,002	3%	93%	11,009	2.6%
Lembus Kwen	20,205	7,120,627	1,388,312	8,508,940	3%	50%	10,042	2.4%
Mukutan	9,440	7,120,627	648,635	7,769,262	3%	89%	8,357	2.0%
Kapropita	15,814	7,120,627	1,086,601	8,207,228	3%	50%	7,930	1.9%
Koibatek	11,962	7,120,627	821,925	7,942,552	3%	65%	7,822	1.9%
Lembus/Perkerra	15,834	7,120,627	1,087,975	8,208,603	3%	49%	7,699	1.8%
Tenges	9,524	7,120,627	654,407	7,775,034	3%	80%	7,656	1.8%
Ravine	16,306	7,120,627	1,120,407	8,241,034	3%	16%	2,622	0.6%
Total	***548,635***	***213,618,824***	***37,697,440***	***1,316,264***	***100%***		***419,971***	***100%***

Sources: Population and water access (Population and Housing Census 2009), Ward Allocation calculated from the 2016/17 Baringo County Budget Estimates

The Act also creates an emergency reserve held at county level that shall take up five percent of the total amount allocated to the fund each year. This shall be for unforeseen expenditure in the county that cannot wait for the next appropriation period. It is not clear why the county is creating this reserve while the county budget already has an allocation for an emergency fund that is supposed to serve that purpose.

7. IMPROVING BARINGO'S APPROACH TO EQUITY

There are several ways in which Baringo's approach could be improved. First, there is a need for clarity in the legislation on what the criteria of sharing revenue will be because the act has two different formulas. Secondly, only a small portion of the county's budget will be shared based on the criteria set out in the act. How will the rest of the budget be distributed, and how will the two streams of funding for development projects be coordinated with the recurrent (operations and maintenance) funding needed?

Finally, the two approaches in the act have large proportions that are to be shared equally among the 30 wards. Unless the development situation in the wards is very similar, a high equal share will not be equitable, as we have seen in the case of water access.

7.1 MERU COUNTY WARD DEVELOPMENT FUND

Meru County Assembly passed a Ward Development Act that sets aside at least 22.5 percent of "ordinary revenue" and national transfers to a Ward Development Fund. The distribution mechanism adopted by the fund is that 85 percent of the money should be shared equally among all wards and 15 percent shared based on three factors: population size, poverty levels, and infrastructure differences among the wards. Although the law has not been implemented yet, it still gives insight into how Meru is thinking about equity, although the current approach to sharing resources in Meru appears to be quite different.[15]

Unfortunately, the law does not give the weights that will be given to each of these parameters nor how they will be measured. The legislation does provide an opportunity to include additional parameters beyond these three in future in determining the distribution of the 15 percent share.

It is not clear what is meant by ordinary revenue, but the law refers to revenue discussed in the Constitution in Article 202 (1) and Article 203 (2). These are articles that refer to the equitable share, so we might assume that the amount of money allocated for the fund will be calculated based on the

[15] See http://citizentv.co.ke/news/wards-in-meru-county-to-get-sh20m-development-fund-97392/

county's equitable share exclusive of conditional grants and county own revenue from property rates or service fees.

The fund will be managed by a Ward Development Fund Committee which is made up of representatives from the community: two men, two women, an NGO representative, two youth representatives, special interest groups and the ward representative who is the secretary. The law gives a detailed criterion on how the members are appointed at the ward level. A county assembly committee is also empowered by the law to develop policies to guide the development fund and provide oversight.

8. ASSESSING THE ACT AGAINST THE PRINCIPLES

Just as in the case of CDF and Baringo's second criteria, a large portion of the funds in Meru is shared equally among the wards, while the rest is shared equitably. As in the other cases, this is a threat to equity as it can lead to very different per capita allocations without a clear justification.

Let us consider just the part of the fund to be shared equally, as we do not know how the remaining 15 percent will be allocated. When we use the 2015/16 budget the amount to be shared equally is Ksh 1.24 billion and this means each ward will be allocated Ksh 27.6 million. However, when we look at the per capita allocation for that equal share, we find major disparities. The highest allocation is two and half times that of the lowest allocation. The per capita allocation for Athwana is Ksh 1,563 (highest), while that of Igembe East is only Ksh 624.

Nevertheless, Meru is the only county among the three analyzed that has a direct measure of infrastructure need in its distribution criteria. The county's use of an "infrastructure differences" parameter means that Meru's fund will address infrastructure needs directly. However, the parameter, as yet unmeasured, is quite small. It is only allocated part of the 15 percent to be shared equitably and there is a provision for further variables to be brought in to distribute this share of the funds.

The fund is also different from Baringo and Elgeyo Marakwet because Meru includes all revenue received by the county from the national government, not just funds for development. The percentage of the county's revenue allocated to the fund is also quite large. The total "ordinary" revenue in 2015/16 is Ksh 6.5 billion and 22.5 percent of that comes to Ksh 1.5 billion.

8.1 IMPROVING MERU'S APPROACH TO EQUITY

Meru's approach to distributing its budget puts too much emphasis on equality of wards. The provision of many if not most county services cannot be provided by dividing up all funding across wards. For example, higher level health facilities serve many wards from a single location and such facilities are only viable when there are a few of them serving a larger region.

The Meru fund does take into account capital gaps, unlike the other two examples. Ironically, however, this is the one county where the money being allocated is not just for development but for all services. The extremely high equal share at 85 percent is unlikely to be equitable if ward inequalities are considered. Meru should consider reducing the share of the budget that passes through this fund, and also the share of the fund that is distributed equally in favor of greater equity.

9. CONCLUSION

As devolution unfolds, this paper has shown that counties are making efforts to systematize how they share revenues among the subregions. The National Government Constituency Development Fund and the CRA formula seem to be the main inspiration for county attempts to share resources in an orderly fashion. This in turn has led to two facts about within county resource sharing. First, counties are taking into account measures of need to some degree. Second, they tend to emphasize equality above equity.

The size of some of these funds commit a large share of county revenue from the budget and this reduces flexibility in the budget process. The projects funded in each ward are determined exclusive of the main budget process and this parallel process might create challenges. For example, if certain projects duplicate other parts of the budget, or if capital projects are introduced through a ward process without adequate operational funds from the main budget, the ward development process could lead to inefficiency and waste. The large share of funding dedicated to ward projects also threatens cross-county (countywide) projects that are not likely to be funded through a process that is based around ward priorities only.

As we have shown here, inequalities among wards are quite extreme within counties. This makes it imperative to consider need, but also to weight equity more heavily than equality. Moreover, the approach to equality pursued by many counties tends to lead to equal shares at the unit level but highly unequal per capita shares, which are neither equal nor equitable.

Where counties have attempted to introduce equity measures, these are also deficient. For example, while a poverty parameter might be a proxy measure for different needs across wards, it is not a very precise measure of infrastructure gaps, which is often what these development-focused resource sharing approaches are ostensibly designed to address. It would be better to use more precise measures of these gaps. There is also a lack of clarity in which approaches will be used and/or how parameters will be measured in all of the cases we looked at, suggesting weaknesses in legislative drafting.

While attempting to share resources in a structured and formulaic way has advantages of transparency and predictability, it must not become an excuse for institutionalizing new inequities. As more counties move to set up mechanisms for resource sharing, they should be careful to ensure that the approaches they select are precise, equitable and consistent.

TABLE 8. SUMMARY OF THE REVENUE SHARING MECHANISMS IN THREE COUNTIES

County	Revenue sharing policy	Objective	Part of the budget to be shared by formula	Total from which percentage for ward allocation share Is drawn (Ksh)	Ward allocation amount (Ksh)	Sharing mechanism
Elgeyo Marakwet	County Equitable Development Act	To ensure there is equal and equitable allocation for development projects across the wards	100% Development Budget	1,280,528,141	1,280,528,141	The total Development budget shall be shared as follows: 60% will be shared equally among the wards while 40% is allocated based on a formula approved by the county assembly.
Baringo	Ward Development Fund	To promote development in the wards	10% Development Budget	2,513,162,637	251,316,264	10% of the development budget which will be shared as follows: 1. Distributed based on a formula similar to the CRA formula. 2. 85% of the funds are allocated equally among wards the remaining 15% are then shared based on the wards share of the ward population, poverty levels and infrastructure needs.
Meru	Ward Development Fund	Promoting development in the wards and to set up institutional framework for coordinating development initiatives and projects in the wards	22.5% of Ordinary Revenue	7,849,242,116	1,766,079,476	22.5% of the ordinary revenue will be shared as follows: 85% of the funds are allocated equally among wards; the remaining 15% are then shared based on the ward's share of the population per ward.

ANNEX 1: SIMULATION OF COUNTY REVENUE SHARING MECHANISMS

This calculation is based on numbers collected by IBP to simulate how the formula would distribute the ward development fund with available data. For cases where no data was available, as in the case of fiscal responsibility, the allocation for that parameter was distributed equally among the wards (as CRA did at national level in first formula). Poverty data was calculated based on the number of poor people per ward and funds distributed based on the share of each ward to the county total (the CRA used poverty gap data at national level, which we do not have at ward level). None of the parameters were capped (in the original CRA formula at national level, land area was capped).

BARINGO COUNTY USING CRA APPROACH

Sources: Population and water access (Population and Housing Census 2009), Ward Allocation calculated from the 2016/17 Baringo County Budget Estimates, Poverty and Land Area from "Exploring Kenya's Inequality: Pulling Apart or Pooling Together," 2013, by KNBS and SID

Ward Development Fund (10% of Development Budget)					**Population (45%)**	**Basic Equal Share (25%)**	**Poverty (20%)**	**Land Area (8%)**	**Fiscal Responsibility (2%)**			
Names	*Population*	*Headcount Index: Percent of Individuals below Poverty Line*	*Headcount of Individuals below Poverty Line*	*County Ward Appx area Sq Km2*	*Allocation Based on Population (Ksh)*	*Allocation Based on Basic Equal Share (Ksh)*	*Allocation Based on Poverty Index (Ksh)*	*Allocation Based on Land Area (Ksh)*	*Allocation Based on Fiscal Responsibility (Ksh)*	*Total Allocation Per Ward (Ksh)*	*Ward Share of the total Allocation to the Fund*	*Per capita (Ksh)*
Tirioko	20,362	84%	17,204	1,103	4,144,974	2,094,302	2,988,473.21	2,001,726	167,544.18	11,397,019	5%	560
Marigat	27,892	43%	12,112	683	5,677,812	2,094,302	2,103,917.34	1,239,343	167,544.18	11,282,918	4%	405
Mochongoi	27,746	42%	11,763	587	5,648,092	2,094,302	2,043,353.46	1,065,234	167,544.18	11,018,526	4%	397
Barwessa	23,986	72%	17,305	476	4,882,690	2,094,302	3,006,140.73	863,551	167,544.18	11,014,229	4%	459
Silale	21,947	92%	20,115	335	4,467,623	2,094,302	3,494,277.81	608,788	167,544.18	10,832,536	4%	494
Tangulbei/Korossi	21,697	65%	14,188	591	4,416,732	2,094,302	2,464,644.89	1,073,313	167,544.18	10,216,536	4%	471
Kollowa	19,499	72%	13,949	753	3,969,298	2,094,302	2,423,028.98	1,366,125	167,544.18	10,020,298	4%	514
Mogotio	27,793	31%	8,578	288	5,657,659	2,094,302	1,490,148.56	521,961	167,544.18	9,931,615	4%	357

Saimo/Soi	17,814	72%	12,897	542	3,626,292	2,094,302	2,240,372.18	983,908	167,544.18	9,112,419	4%	512
Churo/Amaya	21,227	50%	10,671	289	4,321,057	2,094,302	1,853,695.51	525,265	167,544.18	8,961,864	4%	422
Kabarnet	23,430	38%	8,990	166	4,769,509	2,094,302	1,561,626.54	300,764	167,544.18	8,893,745	4%	380
Ribkwo	14,572	67%	9,836	871	2,966,337	2,094,302	1,708,596.59	1,582,040	167,544.18	8,518,820	3%	585
Kisanana	16,658	59%	9,897	487	3,390,972	2,094,302	1,719,253.64	884,301	167,544.18	8,256,373	3%	496
Saimo/Kipsaram	21,046	39%	8,171	86	4,284,212	2,094,302	1,419,468.29	155,392	167,544.18	8,120,918	3%	386
Loiyamorok	13,885	76%	10,518	598	2,826,489	2,094,302	1,827,076.08	1,085,203	167,544.18	8,000,614	3%	576
Emining	16,508	49%	8,052	529	3,360,437	2,094,302	1,398,729.90	960,690	167,544.18	7,981,703	3%	484
Lembus Kwen	20,207	32%	6,544	178	4,113,421	2,094,302	1,136,707.61	323,147	167,544.18	7,835,122	3%	388
Kabartonjo	19,092	43%	8,128	127	3,886,447	2,094,302	1,411,926.15	230,002	167,544.18	7,790,222	3%	408
Ilchamus	15,730	69%	10,834	181	3,202,065	2,094,302	1,881,911.81	328,030	167,544.18	7,673,852	3%	488
Lembus	21,140	20%	4,173	143	4,303,347	2,094,302	724,844.03	259,392	167,544.18	7,549,429	3%	357
Kapropita	16,232	53%	8,681	96	3,304,254	2,094,302	1,507,963.79	174,907	167,544.18	7,248,971	3%	447
Mumberes/Maji Mazuri	18,881	22%	4,225	215	3,843,495	2,094,302	733,943.70	389,932	167,544.18	7,229,218	3%	383
Sacho	15,230	63%	9,640	106	3,100,282	2,094,302	1,674,651.43	192,388	167,544.18	7,229,169	3%	475
Ewalel/Chapchap	17,021	42%	7,126	97	3,464,866	2,094,302	1,237,930.29	175,306	167,544.18	7,139,949	3%	419
Bartabwa	11,851	78%	9,240	474	2,412,439	2,094,302	1,605,039.31	859,558	167,544.18	7,138,883	3%	602
Ravine	17,026	37%	6,381	34	3,465,884	2,094,302	1,108,514.44	60,904	167,544.18	6,897,149	3%	405
Lembus/Perkerra	15,871	34%	5,420	130	3,230,767	2,094,302	941,534.33	236,356	167,544.18	6,670,503	3%	420
Mukutan	9,503	74%	6,992	535	1,934,470	2,094,302	1,214,653.41	971,019	167,544.18	6,381,989	3%	672

Koibatek	12,148	32%	3,844	254	2,472,898	2,094,302	667,797.99	461,765	167,544.18	5,864,307	2%	483
Tenges	9,567	40%	3,874	124	1,947,498	2,094,302	673,030.72	224,992	167,544.18	5,107,367	2%	534
Total	***555,561***		***289,349***	***11,075***	***113,092,319***	***62,829,066***	***50,263,253***	***20,105,301***	***5,026,325***	***251,316,264***	***100%***	