Teaching Tyrants: Analyzing the Impact of Foreign Military Education and Training on Coup Risk in Africa

Abstract

This study examines the relationship between Foreign Military Education and Training (FMET) and coup frequency in Africa, shedding light on a controversial program in a region vital to US national security. Correlation analysis is performed for the number of coups and the mean amount of FMET, non-FMET, and total military aid provided to African nations as a percentage of their GDPs, as well as for the ratio of FMET to non-FMET military aid, for the years 2001 to 2022. This study found no statistically significant correlation between coup frequency and FMET or any other form of military aid, suggesting that, although FMET does not increase the risk of coups in African nations, it also does not transmit democratic values in a way that meaningfully reduces coup risk.

Introduction

In 2020, a military coup in Mali overthrew its elected government and set off a wave of coups that would earn the Sahel region of Africa the moniker "the Coup Belt." This rapid democratic backsliding has enabled human rights abuses, growing influence by Russian private military companies, and disruption of Western counterterrorism efforts amid rising levels of jihadist violence ("A look at the coups across West and Central Africa," 2023). These setbacks have occurred despite—or perhaps because of—decades of United States military aid to African nations, including over one million dollars in Foreign Military Education and Training (FMET) aid to Mali in 2019 alone (USAID, n.d.).

FMET, a collection of US government programs designed to train, educate, and professionalize members of foreign militaries at American military schools, is meant to make foreign military partners more effective and more committed to democratic norms. The existing literature, however, disagrees on its effectiveness. Several studies have shown that FMET raises the risk of military coups, while others have found the exact opposite, with disagreements stemming from differences in data and definitions (Fernandes, 2020).

This study will identify and compare correlations, if they exist, between spending on various forms of US military aid (FMET, non-FMET, and total) and the frequency of coups in African nations, as well as between the proportion of military aid provided as FMET and coup frequency. In so doing, this study sheds light on the possible unintended consequences of FMET, an inexpensive but potentially counterproductive tool of US foreign policy in Africa. I will begin with a review of the sharply divided existing literature before describing my study methodology, which introduces several innovations on prior research. I will then report and interpret the results, as well as discuss their implications for the future of US foreign policy in Africa.

Literature Review

Understanding the relationship between US-sponsored Foreign Military Education and Training (FMET) and the frequency of military coups in partner nations is vital if FMET is to be used effectively and ethically as a tool of soft power. US FMET has expanded vastly since 2002 (McLauchlin, 2022), yet no consensus exists on its consequences for civil-military relations (Fernandes, 2020). If FMET enables the creation of professional, civilian-controlled militaries, then its potential to combat threats and spread US influence is great; if it increases the likelihood of military involvement in politics, it may promote instability and make America's partners less effective (Kurlantzick, 2016).

The definition of a military coup is "an illegal attempt to replace a state's governmental leadership through its military's use or threat of violence" (Savage & Caverly, 2017, p. 543). Foreign Military Education and Training (FMET) is an umbrella term for US military programs offering training and education to foreign partners (Ruby & Gibler, 2010). The International Military Education and Training program, or IMET, is often used as a proxy for FMET because of its transparency and size (Savage & Caverley, 2017), and will be used as such in this study. IMET allows foreign officers to study at American military schools for short-term training or long-term graduate courses, promoting democratic values and friendly relations with the US (Kurlantzick, 2016). The Combatting Terrorism Fellowship Program (CTFP) and Counter Terrorism and Irregular Warfare Fellowship Program, which provide counterterrorism education to senior officers from partner nations, are also considered FMET for the purposes of this study (Savage & Caverley, 2017; DSCA, n.d.).

Literature on the relationship between FMET and the frequency of coup attempts produces opposing conclusions due to differences in data sources and definitions (Fernandes,

2020). Savage & Caverley found that any US FMET corresponded to a doubling of the probability of a military coup (2017), while McLauchlin found a positive relationship between IMET and coup risk, but not other US training programs (2022). Krieger concluded that US efforts to professionalize foreign students are ineffective and may empower them to intervene in civilian politics (2018).

Ruby & Gibler, however, found that US FMET decreases the frequency of coup attempts by half across all nations with graduates in their militaries (2003) due to stabilizing effects in times of democratic transition (2010). Fernandes found no causal or correlational relationship between FMET and military coup attempts in the post-Cold War period (2020). Fabian found that American-taught norms of professionalism and civil-military relations are effectively transmitted to foreign students through IMET, as evidenced by the reduced likelihood of a country with many IMET graduates entering or escalating an armed conflict (2020).

Many causal mechanisms have been offered to explain each conclusion. Military professionalization may increase coup risk in weak states by increasing the competence and influence of FMET graduates, making coups easier to carry out and harder to punish (Savage & Caverley, 2017). Attending a foreign school may also lead officers to recognize intractable problems in their own country and seek illegal solutions to them (Fernandes, 2020). The effectiveness of US FMET in transmitting democratic norms has also been questioned. Brief exposure to American democracy (Savage & Caverley, 2017), assumption of shared democratic values (Krieger, 2018), and low prioritization of human rights training (GAO, 2011) are not ideal conditions for teaching civil-military relations.

Others argue that professionalization through FMET depoliticizes foreign militaries (Ruby & Gibler, 2010) and insulates them from civil sector unrest (Gibler & Ruby, 2003).

Krieger finds that the US government's claims that democratic values are central to FMET are genuine (2010), and Ruby & Gibler argue that transmission of these values is usually effective, especially through direct contact with American culture (2010). Cope argues that the School of the Americas demonstrates effective value transmission, as most foreign graduates who went on to commit abuses were those who attended technical courses (such as parachute rigging) too short for them to absorb American norms (1995). Those officers selected for FMET also tend to be on a favorable career track that benefits from the status quo, and with the knowledge from FMET, may feel equipped to make change legally (Fernandes, 2020).

The comparative relationship between coups and FMET- versus non-FMER military aid (such as weapons donations) is understudied. Savage & Caverley found that non-FMET military aid has a statistically insignificant negative effect on coup probability, theorizing that non-FMET military aid should reduce coup risk by freeing up government resources for coup-proofing. Compared to FMET, which develops human capital that is inexpensive and therefore frees up few resources, they conclude that FMET increases coup risk to a much greater extent than other forms of military aid (2017).

Many factors besides military aid contribute to coup risk. Regime legitimacy (Belkin & Schofer, 2003) and regime age (Boutton, 2021) have been found to have a negative correlation with coup probability, as have economic strength and spending per soldier (Fernandes, 2020). A strong civil society (Belkin & Schofer, 2003) and low levels of social fragmentation (Fernandes, 2020) also have a negative correlation with coup probability. The frequency of past coup attempts is often correlated with the risk of future attempts, but the causal mechanisms are not clear and likely vary from country to country (Fernandes, 2020).

Existing research, however, has yet to study the role of FMET in preventing or promoting coups in Africa specifically. This is a concerning omission considering the frightening spate of coups across the Sahel in recent years and the rising threat of terrorist violence on the continent, both of which could theoretically be combatted through effective military education. Further research must also be performed on the comparative risks of FMET and non-FMET military aid. Filling these gaps is this study's primary contribution to the existing literature.

Methodology

This study includes all 55 countries in Africa except South Sudan, which became independent in 2011. The temporal range of the study is 2001 to 2022, the only years for which the United States Agency for International Development (USAID) consistently provides data on aid spending and the United Nations Development Project (UNDP) provides data on Human Development Indices. This range also ensures that data from before and during the Global War on Terror are not aggregated, an extension of Fernandes's decision to separate Cold War data from post-Cold War data (2020).

The dependent variable in this study is the total number of military coups and coup attempts in each country from 2001 to 2022. I use the Cline Center's Coup d'État Project Database, which lists and codes coups in each country from 1945 to 2022. Only events coded as coups or coup attempts are included in my study, with coup conspiracies – foiled in the preparatory stages before conspirators can make a final "go or no-go" decision – excluded. Because Foreign Military Education and Training (FMET), which is provided only to uniformed members of national militaries, is the program of interest in this study, only coups and coup attempts coded as "Military" were included, thus excluding coups by civilian politicians and rebel groups (Peyton et al., 2023).

Four independent variables are used, with data for each drawn from USAID's Foreign Assistance by Country Database, which codes aid as "Military" or "Economic" (USAID, n.d.). The first three independent variables are mean annual FMET aid, non-FMET military aid, and total military aid provided to each country as a percentage of real GDP. FMET aid includes spending on International Military Education and Training (IMET), the Combating Terrorism Fellowship Program (CTFP), and the Counter Terrorism and Irregular Warfare Fellowship Program (CTIWFP). Non-FMET military aid consists of all other aid coded as "Military," and total military aid is the sum of both. With the null hypothesis (H_0) that no variable is correlated with coup frequency, three hypotheses are tested:

H1: mean annual FMET aid as a percentage of GDP is positively correlated with coup frequency.

H2: mean annual non-FMET aid is negatively correlated with coup frequency.

H3: mean annual total military aid is negatively correlated with coup frequency.

The fourth independent variable is the mean annual ratio of spending on FMET aid to non-FMET military aid in each country. If a higher ratio corresponds to increased coup frequency, it will support Savage & Caverley's theory that increased FMET aid at the expense of other military aid increases coup risk, likely by freeing up fewer resources for coup-proofing (2017). With the null hypothesis (H_0) that an increase in this ratio will have no correlation with coup frequency, the following hypothesis is tested:

H4: mean annual ratio of FMET aid to non-FMET aid is positively correlated with coup frequency.

Data for each independent variable is standardized either by calculating aid as a percentage of real GDP or calculating a ratio of FMET aid to non-FMET military aid. This

accounts for the difference in impact of a dollar spent in countries with small economies (such as Malawi) and large ones (such as Nigeria). Real GDP data comes from Worldometer's GDP by Country database, except for Djibouti and Eritrea, which comes from Statista. Missing data for Eritrea, Liberia, and Sao Tome & Principe was imputed using the nearest available value. Morocco is the only country for which nominal, rather than real, dollar values were used for both GDP and military aid, as reliable real GDP data was not provided. However, standardization allows Morocco to be included in the dataset.

By incorporating the mean Fragile States Index score of each country into my analysis, it is possible to control for many possible confounding variables, such as economic performance and state legitimacy (Fragile States Index, n.d.). Missing data for the years 2001 to 2006 (gap years vary by country) was imputed using the average value of all years for which data is available for each country.

JASP was used to perform all analyses. After inputting data for all four independent variables, the dependent variable, and the Fragile States Index, separate partial correlations were performed for each independent variable to identify any correlation with coup frequency, with mean Fragile States Index scores partialed out to control for confounding. Finally, a correlation was performed using only mean State Fragility Index scores as an explanatory variable.

Results

The analysis included data from 54 countries over a twenty-one-year period, 2001-2022. Table 1 presents the summary statistics for all relevant variables.

Table 1

Descriptive Statistics for All Variables

Variable	Mean	Standard Deviation	Min	Max
Mean FMET Aid (% of real GDP)	0.0067041195513296	0.012405535952164	0	0.08738701231
Mean non-FMET Aid (% of real GDP)	0.083799108120628	0.26362359616716	0	1.786511079
Mean Total Military Aid (% of real GDP)	0.090503227668637	0.2643138176093	0	1.787308428
Mean Annual Ratio of FMET Aid to Total Military Aid	0.50509566544217	0.28521861010628	0	1
Mean State Fragility Index Score	83.925510619444	16.213529040352	36.40588235	112.6588235
Number of Military Coups & Attempts	1.1666666666667	1.718634255362	0	8

To test the hypotheses that there is a correlation between each form of military aid as a percentage of GDP and coup frequency, as well as between the ratio of FMET to non-FMET military aid and coup frequency, a Pearson partial correlation coefficient was calculated for each. The resulting values for Pearson's 'r' show an insignificant weak positive correlation between mean FMET aid as a percentage of real GDP and coup frequency, as well as the mean annual ratio of FMET aid to total military aid and coup frequency. Inversely, mean non-FMET aid and total military aid as percentages of real GDP show insignificant weak negative correlations with coup frequency.

All findings are consistent with those of Savage & Caverley, and the weak positive correlation between mean State Fragility Index score and coup frequency is consistent with the research of Fernandes (2020) and Belkin & Schofer (2003). However, because no Pearson correlation coefficient was statistically significant ($p<0.05$), my findings cannot be treated as conclusive support for any of the research mentioned.

Table 2

Pearson Partial Correlation between Independent Variables and Coup Frequency

Variable	Pearson's r	p-value
Mean FMET Aid (% of real GDP)	0.033	0.818
Mean non-FMET Aid (% of real GDP)	-0.147	0.300
Mean Total Military Aid (% of real GDP)	-0.144	0.307
Mean Annual Ratio of FMET Aid to Total Military Aid	0.049	0.731
Mean State Fragility Index Score*	0.148	0.289

For all four hypotheses, the results of this study fail to reject the null hypothesis. The results suggest that there is no statistically significant correlation between any form of military aid and coup frequency in Africa. The same is true for mean State Fragility Index score, a surprising result considering the scholarly consensus that economic, social, and governmental weakness raise coup risk. Although these findings do not decisively support one side of the debate over the other, they have important implications for future research.

Discussion

This study finds no statistically significant correlation between coup frequency in African nations since 2001 and any of the explanatory variables. This suggests that if US military aid, Foreign Military Education and Training (FMET), or otherwise, increases or decreases the risk of coups in Africa, the effect is incredibly slight. This is in stark contrast to most previous research, which has found that, globally, a strong correlation exists between FMET and coup risk, either

positive or negative (Savage & Caverley, 2017; McLauchlin, 2022; Ruby & Gibler, 2003). Only Fabian found no relationship (2020). The insignificance of the composition of military aid (the ratio of FMET to non-FMET aid) further suggests that the difference between aid types in their ability to free up resources for coup-proofing is less impactful than Savage & Caverley expected.

The results of this study have two key policy implications. First, by failing to show that FMET spending is *positively* correlated with coups in Africa, they suggest that policymakers should not be so concerned about coup risk that they remove FMET, a relatively low-cost form of military aid, from their tool belt in Africa. Second, by failing to show that FMET spending is *negatively* correlated with coups in Africa, the results suggest that policymakers should find ways to modify curriculums, selection standards, and so on to better transmit democratic values and prevent the admission of high-risk students, thus making FMET a better tool to promote civilian control of the military.

This study has several limitations which should be addressed in further research. Its geographic scope is limited to Africa, making application to the entire world impossible, especially considering characteristics unique to Africa such as its unusually high ethnic diversity and generally low levels of development. Its scope in time is also limited to a twenty-one-year period, much shorter than similar studies that have extended back to the end of the Cold War and beyond. Besides preventing generalization, these limits may also have been too narrow to produce statistically significant results.

On the other hand, by analyzing FMET aid spending rather than the number of graduates, this study accounts for the varying lengths of FMET courses, as longer courses generally cost more while providing more time for democratic value transmission (Cope, 1995). By focusing on Africa, it also provides insights specific to this high-risk region, and by focusing on the years

2001 to 2022, data from the counter-terrorism-focused FMET of the Global War on Terror (Savage & Caverley, 2017) need not be aggregated with the very different courses which preceded it. Further Africa-focused FMET research should be conducted with a broader time frame, as far back as 1991 or beyond, to ensure any statistically significant correlations are identified. Research focused on FMET on all continents during the Global War on Terror should also be conducted to determine if a greater curricular focus on counterterrorism has affected democratic value transmission.

Conclusion

This study sought to identify correlations between coup frequency in African nations and the size and composition of American military aid, in particular Foreign Military Education and Training (FMET). However, I found no statistically significant correlation between any form of US military aid and the frequency of coups in Africa between 2001 and 2022, suggesting that FMET and US military aid more broadly have not meaningfully prevented or promoted military coups across the continent. Additionally, the statistically insignificant correlation between the ratio of FMET aid to non-FMET military aid and coup frequency does not support Savage & Caverley's theory that FMET raises coup risk more than other forms of aid due to its effects on coup-proofing, as countries that received higher proportions of aid as FMET would be expected to experience more coups.

Future research with a broader temporal or geographic scope is necessary to ensure these results are not due to the limited years and countries included in this study. To better understand FMET as a coup risk factor in Africa, future studies should be expanded to the end of the Cold War and beyond, while others should encapsulate the whole world but only during the years of the Global War on Terror. In the meantime, policymakers should press the institutions that

provide FMET to expand and improve instruction on democratic values, as even if their work does not promote coups, it appears ineffective at preventing them as well. FMET offers an inexpensive, low-footprint means of enabling partners and expanding American influence as Africa becomes a battleground for both great power competition and the global fight against terrorism. Only with further research and prophylactic policy change can the United States ensure that FMET is not undermining the values it is meant to promote.

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Appendix A: Relevant Data for Countries in Africa, 2001–2022

Country	Mean FMET Aid (constant $)	Mean Non-training Military Aid (constant $)	Mean Total Military Aid (constant $)	Mean Ratio (FMET Aid: Total Military Aid)	Mean FMET Aid (% of real GDP)	Mean Non-training Military Aid (% of real GDP)	Mean Total Military Aid (% of real GDP)	Mean State Fragility Index	Number of military coups and coup attempts
Algeria	$1,110,933.59	$796,745.09	$1,907,678.68	0.8544437192	0.0007590600667	0.0004648062288	0.0012238663555	70	1
Angola	$399,681.68	$98,281.59	$497,963.27	0.8489068476	0.0005858675913	0.0001693568589	0.0007552244502	87.11764706	0
Benin	$364,891.91	$739,720.59	$1,104,612.50	0.5349292335	0.0038461348 03	0.0055784640 82	0.0094245988 85	75.59411765	0
Botswana	$825,699.14	$419,134.05	$1,244,833.18	0.7594150773	0.0072390015 77	0.0042533954 26	0.0114923977	63.60588235	0
Burkina Faso	$281,233.73	$4,469,800.00	$4,751,033.73	0.6197979596	0.0025977633 345	0.0303465965 4	0.0329443598 8	88.64705882	8
Burundi	$290,018.91	$2,410,751.09	$2,700,770.00	0.6133095957	0.0100002254 4	0.0824687834 3	0.0924690088 7	97.22352941	3
Cabo Verde	$195,242.77	$718,801.18	$914,043.95	0.5059619518	0.0133095087 8	0.0408906677 7	0.0542001765 5	72.24375	0
Cameroon	$549,511.00	$3,443,688.59	$3,993,199.59	0.4630529473	0.0019741991 73	0.0106733534 4	0.0126475526 1	94.41764706	0
C.A.R.	$88,649.89	$2,315,655.41	$2,769,935.11	0.5613715177	0.0040343102 33	0.1257464012	0.1297807115	106.9352941	1
Chad	$473,015.18	$4,195,279.68	$4,668,294.86	0.4633861264	0.0061214518 47	0.0410859313 6	0.0472073832 1	108.7823529	3
Comoros	$133,005.82	$68,828.27	$201,834.09	0.8501247262	0.0149425097 4	0.0091843414 37	0.0241268511 8	82.93125	0
Republic of Congo	$202,308.09	$21,268.27	$223,576.36	0.9499312512	0.0021563885 21	0.0002605744 753	0.0024169629 96	91.9875	1
D.R.C.	$350,606.09	$5,475,471.14	$5,826,077.23	0.1777905487	0.0012699401 95	0.0179010272 7	0.0191709674 6	109.3	1
Côte d’Ivoire	$211,900.64	$397,782.45	$609,683.09	0.3901779377	0.0004394874 119	0.0007633796 18	0.0012028670 3	99.27058824	2
Djibouti	$561,632.27	$9,143,543.95	$9,705,176.23	0.1530065809	0.0318273557 5	0.4963913681	0.5282187239	84.1875	0
Egypt	$1,482,971.27	$1,542,165,207.41	$1,543,648,178.68	0.0012358527 57	0.0005653318 432	0.5807414062	0.5813067338	88.49411765	2
Equatorial Guinea	0	0	0	N/A (impute as 0)	0	0	0	85.58823529	0

Eritrea	$66,240.14	$30,080.14	$96,320.27	0.72480029 94	0.01025621 38	0.00395449 1259	0.01421070 506	93.81764 706	1
Eswatini	$164,323.45	$43,260.41	$207,583.86	0.83861573 95	0.00472781 7598	0.00132579 7053	0.00605361 4651	84.075	0
Ethiopia	$574,262.55	$3,659,561.68	$4,233,824.23	0.31382221 93	0.00157166 456	0.00986063 9783	0.01143230 434	97.43529 412	1
Gabon	$314,237.23	$264,622.55	$578,859.77	0.69479859 91	0.00259878 9655	0.00212296 5737	0.00472175 5392	72.34117 647	1
Gambia	$156,349.59	$116,587.09	$272,936.68	0.80232516 77	0.01241045 472	0.00740899 6838	0.01981945 155	81.55294 118	3
Ghana	$859,827.86	$2,347,042.59	$3,206,870.45	0.29547255 84	0.00242010 0217	0.00596411 8297	0.00838421 8513	66.65294 118	0
Guinea	$341,243.45	$873,126.86	$1,214,370.32	0.48717400 64	0.00464900 3797	0.01116467 981	0.01581368 361	101.5529 412	2
Guinea-Bissau	$93,260.05	$11,089.18	$104,349.23	0.89681264 84	0.01016764 061	0.00131180 0079	0.01147944 069	95.62941 176	6
Kenya	$897,886.68	$27,175,111.68	$28,072,998.36	0.21166046 74	0.00153396 5558	0.04043603 579	0.04197000 134	95.39411 765	0
Lesotho	$92,058.05	$21,894.18	$113,952.23	0.79066395 8	0.00470057 3687	0.00114238 2932	0.00584295 6618	80.0125	1
Liberia	$343,168.50	$12,445,209.55	$12,788,378.05	0.05819485 35	0.01215798 227	0.53335115 46	0.54550913 69	92.95294 118	0
Libya	$124,123.77	$3,843,232.18	$3,967,355.95	0.31338741 06	0.00022316 12746	0.00748651 1409	0.00770967 2683	84.37647 059	1
Madagascar	$207,571.55	$294,258.32	$501,829.86	0.49627523 69	0.00214323 3248	0.00278792 8113	0.00493116 1361	81.5375	3
Malawi	$458,415.09	$74,725.59	$533,140.68	0.87916715 45	0.00666888 1297	0.00106294 4721	0.00773182 6019	88.35882 353	0
Maldives	$350,753.91	$1,169,922.86	$1,520,676.77	0.72226983 84	0.01030942 514	0.03698371 655	0.04729314 169	73.95625	0
Mali	$471,696.45	$1,385,107.59	$1,856,804.05	0.56113694 89	0.00400639 2801	0.01163164 879	0.01563804 159	87.07647 059	5
Mauritania	$288,753.14	$5,170,811.05	$5,459,564.18	0.43780797 15	0.00526166 0018	0.09101872 539	0.09628038 541	90.04117 647	4
Mauritius	$275,923.32	$96,427.68	$372,351.00	0.78968060 81	0.00262489 6659	0.00089279 33498	0.00351769 0009	42.25294 118	0
Morocco	$1,549,131.82	$26,063,752.73	$27,612,884.55	0.07375049 815	0.00169151 7487	0.02629798 691	0.02798950 439	36.40588 235	0
Mozambique	$405,390.86	$293,306.59	$698,697.45	0.70414035 02	0.00353209 7268	0.00263944 2041	0.00617153 9309	85.09411 765	0
Namibia	$130,887.95	$0.00	$130,887.95	1	0.00159817 6832	0	0.00159817 6832	69.96470 588	0

Niger	$375,004.09	$7,001,516.77	$7,376,520.86	0.4180955874	0.003827021543	0.068292077775	0.072119090929	96.02352941	3
Nigeria	$1,108,017.64	$7,077,589.82	$8,185,607.45	0.2678741888	0.0002874229697	0.0020091900007	0.0022966129976	99.15294118	1
Rwanda	$507,700.59	$2,432,919.73	$2,940,620.32	0.6652970825	0.007520725531	0.02879784184	0.03631856737	88.92352941	0
Sao Tome & Principe	$215,256.14	$147,183.64	$362,439.77	0.7698060583	0.08738701231	0.06316046001	0.1505474723	73.89375	2
Senegal	$1,232,074.09	$3,610,358.32	$4,842,432.41	0.3368854636	0.008560307165	0.02215084356	0.03071115072	76.39411765	0
Seychelles	$194,097.14	$700,186.50	$894,283.64	0.6504692488	0.01578996207	0.05768783673	0.07347779881	62.19375	0
Sierra Leone	$444,716.27	$898,444.95	$1,343,161.23	0.6135656957	0.01263663176	0.02018184307	0.03281847483	89.99411765	0
Somalia	$60,655.05	$100,590,881.18	$100,651,536.23	0.06389322074	0.0007973492907	1.786511079	1.787308428	112.6588235	0
South Africa	$814,652.86	$1,921,334.55	$2,735,987.41	0.4982473384	0.0002808688517	0.0006862486365	0.0009671174882	67.35294118	0
Sudan	$0.00	$35,105,579.00	$35,105,579.00	0	0	0.03938212039	0.03938212039	36.40588235	4
Tanzania	$605,389.18	$2,236,311.55	$2,841,700.73	0.4380646814	0.001460280322	0.004856096843	0.006316377165	80.03529412	0
Togo	$249,891.36	$544,065.05	$793,956.41	0.5625636097	0.004950669206	0.008877956417	0.01382862562	86.65294118	1
Tunisia	$2,210,791.95	$51,447,348.82	$53,658,140.77	0.08695139893	0.005548773139	0.115102806	0.1206515792	70.71764706	0
Uganda	$1,004,545.73	$20,035,774.36	$21,040,320.09	0.2107980315	0.00350283666	0.06091361444	0.0644164511	95.62941176	0
Zambia	$382,787.36	$95,386.36	$478,173.73	0.8538559194	0.00255041014	0.0007772108734	0.003327621014	84.55882353	0
Zimbabwe	0	0	0	N/A (impute as 0)	0	0	0	104.5823529	2