

# GBD PROFILE: DEMOCRATIC REPUBLIC OF THE CONGO

## GLOBAL BURDEN OF DISEASES, INJURIES, AND RISK FACTORS STUDY 2010

The Global Burden of Disease Study 2010 (GBD 2010) is a collaborative project of nearly 500 researchers in 50 countries led by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. It is the largest systematic scientific effort in history to quantify levels and trends of health loss due to diseases, injuries, and risk factors. GBD serves as a global public good to inform evidence-based policymaking and health systems design.

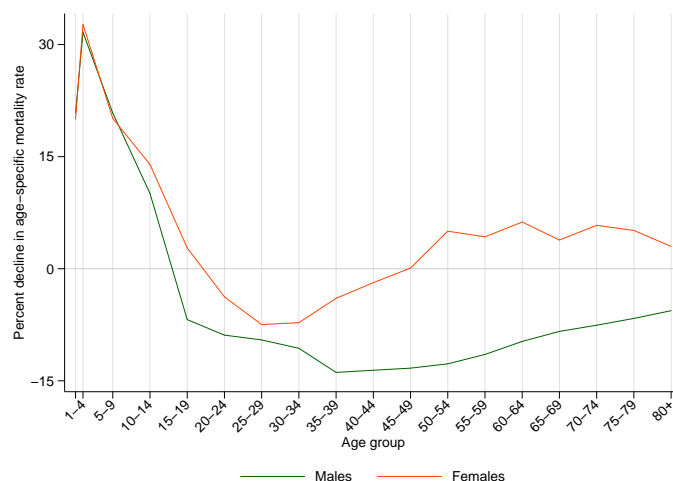
### PROFILE OVERVIEW

- In terms of the number of years of life lost (YLLs) due to premature death in the Democratic Republic of the Congo, malaria, diarrheal diseases, and protein-energy malnutrition were the highest ranking causes in 2010.
- Of the 25 most important causes of burden, as measured by disability-adjusted life years (DALYs), syphilis showed the largest decrease, falling by 19% from 1990 to 2010.
- The leading risk factor in the Democratic Republic of the Congo is childhood underweight.

### ALL-CAUSE MORTALITY RATE

- This chart shows the change in mortality rate at every age range. The points above 0 on the chart indicate positive declines in the all-cause mortality rate, while points below 0 indicate an increase in mortality rate between 1990 and 2010.
- The greatest reductions in all-cause mortality rate were experienced by females aged 1-4 years (33%). Males aged 35-39 years saw the largest increase in mortality rate (14%).

Percent decline in age-specific mortality rate by sex from 1990-2010 in the Democratic Republic of the Congo



### CAUSES OF PREMATURE DEATH

Years of life lost (YLLs) quantify premature mortality by weighting younger deaths more than older deaths.

Ranks for top 25 causes of YLLs 1990-2010, Democratic Republic of the Congo

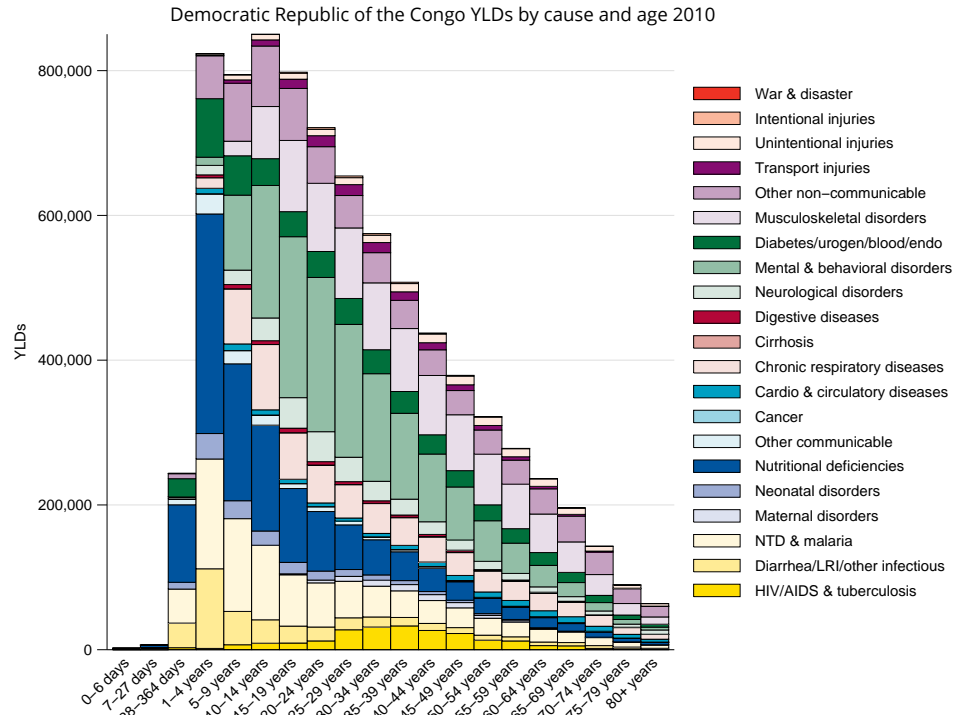
# YLLs in thousands (% of total)	Rank and disorder 1990	Rank and disorder 2010	# YLLs in thousands (% of total)	% change
5,058 (14.0%)	1 Malaria	1 Malaria	7,918 (15.9%)	55
4,317 (12.0%)	2 Diarrheal diseases	2 Diarrheal diseases	6,287 (12.7%)	49
4,097 (11.3%)	3 Lower respiratory infections	3 Protein-energy malnutrition	4,648 (9.5%)	52
3,074 (8.5%)	4 Protein-energy malnutrition	4 Lower respiratory infections	4,458 (9.1%)	9
2,322 (6.4%)	5 Measles	5 HIV/AIDS	2,633 (5.4%)	187
1,524 (4.2%)	6 Preterm birth complications	6 Preterm birth complications	2,060 (4.2%)	36
1,149 (3.2%)	7 Congenital anomalies	7 Tuberculosis	1,634 (3.3%)	88
922 (2.6%)	8 HIV/AIDS	8 Congenital anomalies	1,536 (3.1%)	33
884 (2.4%)	9 Tuberculosis	9 Meningitis	1,316 (2.7%)	73
801 (2.2%)	10 Neonatal encephalopathy	10 Neonatal encephalopathy	1,226 (2.5%)	52
756 (2.1%)	11 Meningitis	11 Neonatal sepsis	1,030 (2.1%)	56
735 (2.0%)	12 Syphilis	12 Stroke	804 (1.6%)	81
648 (1.8%)	13 Neonatal sepsis	13 Interpersonal violence	634 (1.3%)	150
444 (1.2%)	14 Stroke	14 Syphilis	589 (1.2%)	-19
423 (1.2%)	15 Road injury	15 Ischemic heart disease	526 (1.1%)	76
308 (0.9%)	16 Maternal disorders	16 Maternal disorders	524 (1.1%)	68
332 (0.9%)	17 Drowning	17 Drowning	542 (1.1%)	74
300 (0.8%)	18 Ischemic heart disease	18 Road injury	492 (1.0%)	24
317 (0.9%)	19 Fire	19 Fire	517 (1.0%)	63
313 (0.9%)	20 Mechanical forces	20 Sickle cell	470 (1.0%)	48
333 (0.9%)	21 Sickle cell	21 Cirrhosis	292 (0.6%)	83
257 (0.7%)	22 Interpersonal violence	22 Epilepsy	267 (0.5%)	115
612 (1.7%)	23 Trypanosomiasis	23 Mechanical forces	259 (0.5%)	-16
193 (0.5%)	24 COPD	24 COPD	232 (0.5%)	21
180 (0.5%)	25 Iron-deficiency anemia	25 Iron-deficiency anemia	223 (0.5%)	25
	27 Cirrhosis	30 Trypanosomiasis		
	29 Epilepsy	46 Measles		

This chart shows the change in the top 25 causes of YLLs due to premature mortality from 1990 to 2010. Solid lines indicate a cause has moved up in rank or stayed the same. Broken lines indicate a cause has moved down in rank. The causes are color coded by blue for non-communicable diseases, green for injuries, and red for communicable, maternal, neonatal, and nutritional causes of death.

## YEARS LIVED WITH DISABILITY (YLDs)

Years lived with disability (YLDs) are estimated by weighting the prevalence of different conditions based on severity. The top five leading causes of YLDs in the Democratic Republic of the Congo are iron-deficiency anemia, major depressive disorder, low back pain, malaria, and chronic obstructive pulmonary disease.

The size of the colored portion in each bar represents the number of YLDs attributable to each cause. The height of each bar shows which age groups had the most YLDs in 2010. The causes are aggregated. For example, musculoskeletal disorders include low back pain and neck pain.

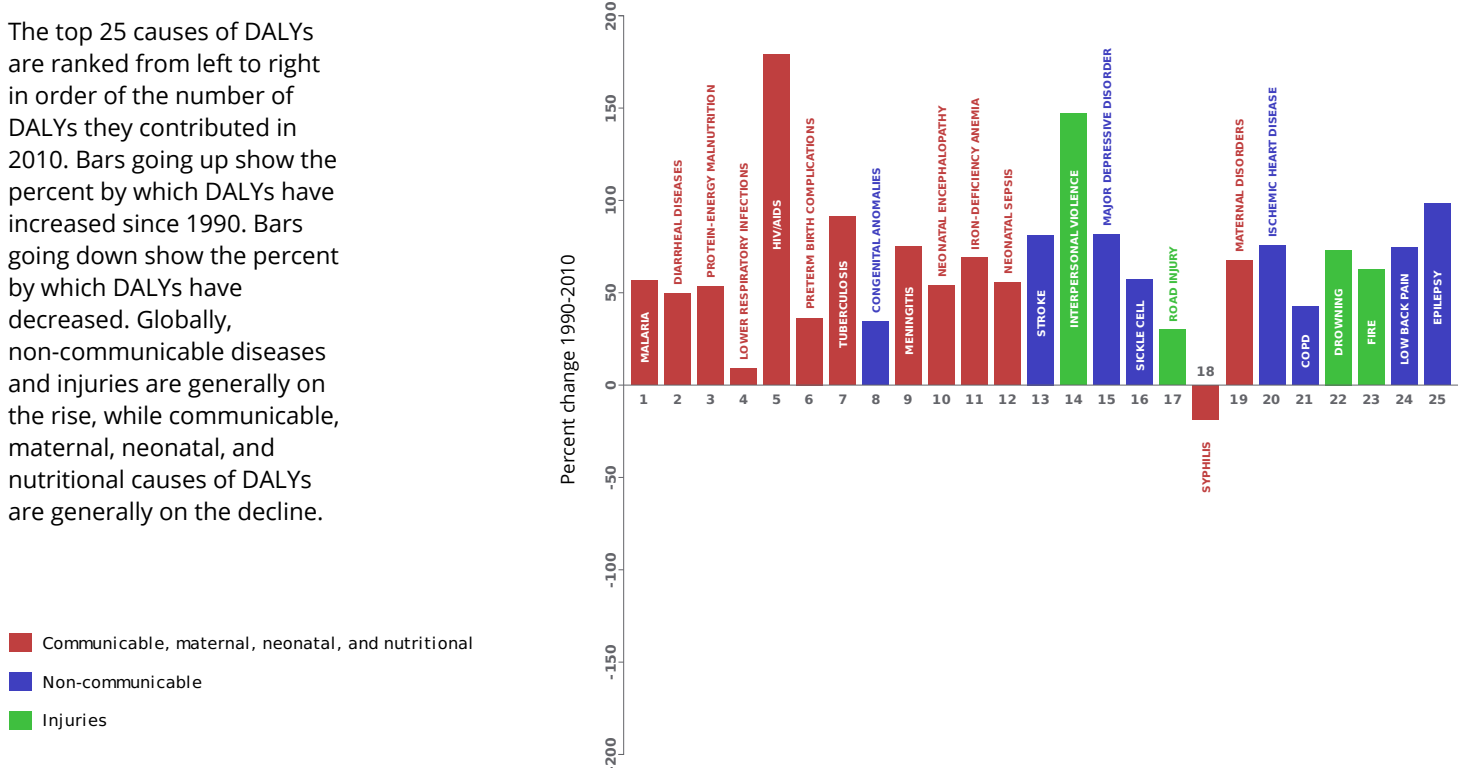


## DISABILITY-ADJUSTED LIFE YEARS (DALYs)

Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population. In the Democratic Republic of the Congo, the top three causes of DALYs in 2010 were malaria, diarrheal diseases, and protein-energy malnutrition. The only cause to appear in the 10 leading causes of DALYs in 2010 and not 1990 was meningitis.

The top 25 causes of DALYs are ranked from left to right in order of the number of DALYs they contributed in 2010. Bars going up show the percent by which DALYs have increased since 1990. Bars going down show the percent by which DALYs have decreased. Globally, non-communicable diseases and injuries are generally on the rise, while communicable, maternal, neonatal, and nutritional causes of DALYs are generally on the decline.

Leading causes of DALYs and percent change 1990 to 2010 for the Democratic Republic of the Congo

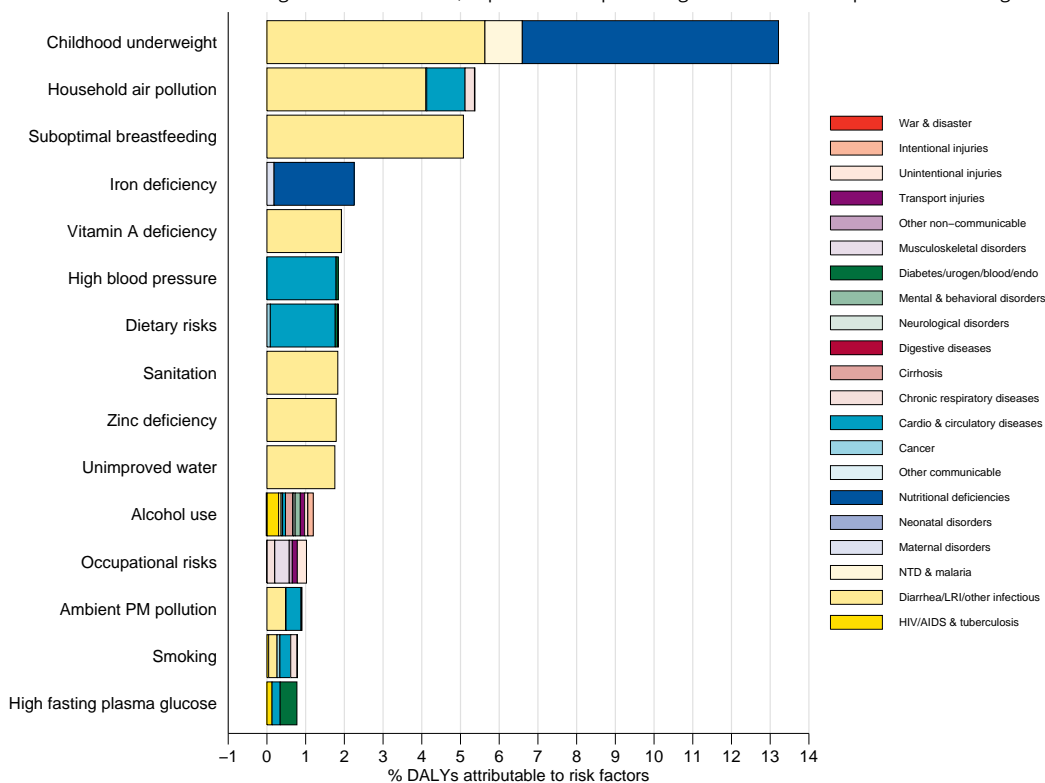


## RISK FACTORS

Overall, the three risk factors that account for the most disease burden in the Democratic Republic of the Congo are childhood underweight, household air pollution from solid fuels, and suboptimal breastfeeding. The leading risk factors for children under 5 and adults aged 15-49 years were childhood underweight and iron deficiency, respectively, in 2010.

Burden of disease attributable to 15 leading risk factors in 2010, expressed as a percentage of Democratic Republic of the Congo DALYs

The graph shows the top 15 risk factors for the Democratic Republic of the Congo. The colored portion of each bar represents the specific diseases attributable to that risk factor while bar size represents the percentage of DALYs linked to specific risk factors.



## COUNTRY BENCHMARKING OF BURDEN OF DISEASE

Understanding the relative performance of the Democratic Republic of the Congo against other comparator countries provides key insight into public health successes and areas where the Democratic Republic of the Congo might be falling behind. The table identifies the Democratic Republic of the Congo's rank across 14 other comparator countries, selected and ordered by income per capita, for five metrics of interest, with 1 indicating the best rank and 15 indicating the worst rank.

- Age-standardized rates are used to make meaningful comparisons across time by adjusting for changes in population size and age structure.
- Life expectancy incorporates mortality, and health-adjusted life expectancy further incorporates years lived in less than ideal health.
- In 2010, the Democratic Republic of the Congo ranked 8th for age-standardized death rate and 11th for age-standardized YLD rate.

Age-standardized death rates, YLL rates, YLD rates, and life expectancy at birth and health-adjusted life expectancy at birth for 1990 and 2010, both sexes combined																				
Country	Age-standardized death rate (per 100,000)				Age-standardized YLL rate (per 100,000)				Age-standardized YLD rate (per 100,000)				Life expectancy at birth				Health-adjusted life expectancy at birth			
	1990		2010		1990		2010		1990		2010		1990		2010		1990		2010	
	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	Rate	Rank	LE	Rank	LE	Rank	HALE	Rank	HALE	Rank
Afghanistan	1,931	12	1,668	10	68,958	6	52,078	6	17,727	15	17,252	15	51.9	6	57.7	6	42.4	7	47.3	9
Madagascar	1,451	3	1,156	1	56,586	3	37,200	1	14,116	2	14,145	4	56.1	3	63.6	1	47.6	3	53.8	1
Togo	1,282	2	1,199	2	51,184	2	46,594	4	14,577	5	13,973	3	58.3	2	60.2	4	49.1	2	51	4
Mozambique	1,659	6	1,725	11	74,370	8	67,547	14	15,342	11	14,841	9	50	8	52.5	14	41.9	8	44.5	14
Sierra Leone	1,682	7	1,347	6	78,271	10	49,641	5	15,322	10	15,221	13	48.9	10	58.6	5	40.9	12	49.1	5
Ethiopia	2,152	15	1,292	4	86,420	14	43,719	2	13,713	1	12,723	1	46.7	14	60.9	2	40.2	14	52.5	2
Malawi	1,768	10	1,730	12	79,007	11	66,486	13	15,082	8	14,549	7	48.7	11	52.9	13	41	11	45	12
Central African Republic	2,131	14	2,408	15	81,026	13	90,581	15	15,696	14	15,022	10	48.3	12	46.2	15	40.8	13	39.5	15
Eritrea	1,807	11	1,353	7	67,111	5	44,346	3	15,508	13	14,614	8	52.4	5	60.6	3	44	5	51.2	3
Somalia	1,738	8	1,606	9	70,184	7	57,208	9	14,350	3	14,546	6	51.3	7	55.8	9	43.6	6	47.4	8
Niger	1,765	9	1,268	3	88,497	15	52,955	7	14,526	4	13,915	2	46.1	15	57.7	7	39	15	48.9	6
Zimbabwe	1,144	1	1,801	14	39,368	1	65,919	12	15,058	7	15,659	14	63	1	53.1	12	52.7	1	44.7	13
Liberia	1,585	5	1,333	5	75,995	9	53,808	8	15,298	9	15,200	12	49.6	9	57.2	8	41.4	9	47.7	7
Burundi	1,966	13	1,759	13	80,347	12	62,752	11	14,581	6	14,412	5	48.3	13	54	11	41.1	10	46	11
<b>Democratic Republic of the Congo</b>	<b>1,568</b>	<b>4</b>	<b>1,506</b>	<b>8</b>	<b>65,799</b>	<b>4</b>	<b>59,031</b>	<b>10</b>	<b>15,361</b>	<b>12</b>	<b>15,099</b>	<b>11</b>	<b>52.9</b>	<b>4</b>	<b>55.2</b>	<b>10</b>	<b>44.3</b>	<b>4</b>	<b>46.4</b>	<b>10</b>

## COUNTRY BENCHMARKING OF BURDEN OF DISEASE, CONTINUED

This figure shows the rank of the Democratic Republic of the Congo relative to the same comparator countries for the leading causes of DALYs in 1990 (top) and 2010 (bottom).

- The columns are ordered by the absolute number of DALYs in the Democratic Republic of the Congo for that particular year, with greatest burden on the left.
- The numbers indicate the rank across countries for each cause in terms of age-standardized DALY rates, with 1 as the best performance and 15 as the worst.

Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 1990																											
Country	Malaria	Diarrheal diseases	Lower respiratory infections	Protein-energy malnutrition	Measles	Preterm birth complications	Congenital anomalies	HIV/AIDS	Tuberculosis	Neonatal encephalopathy	Meningitis	Syphilis	Iron-deficiency anemia	Neonatal sepsis	Road injury	Stroke	Sickle cell	COPD	Major depressive disorder	Maternal disorders	Ischemic heart disease	Drowning	Fire	Mechanical forces	Low back pain		
Afghanistan	2	3	13	2	2	4	14	1	4	1	6	1	2	2	15	15	2	4	15	7	15	15	8	15	15		
Madagascar	4	6	3	8	10	10	11	5	1	2	2	14	3	8	9	14	8	9	2	4	13	7	6	6	11		
Togo	7	2	2	3	8	8	3	10	2	11	8	10	10	13	8	7	11	3	10	3	5	1	2	1	10		
Mozambique	15	7	10	4	11	12	4	3	11	14	10	15	8	15	2	1	6	1	12	9	1	12	11	12	9		
Sierra Leone	13	4	12	15	7	15	8	2	5	15	13	6	15	10	7	8	13	10	3	5	7	3	7	5	7		
Ethiopia	5	8	14	6	15	13	9	7	13	6	12	8	5	6	12	4	5	13	1	13	4	6	14	14	1		
Malawi	12	13	5	7	3	2	15	14	8	13	5	5	6	12	10	12	7	5	5	10	12	14	13	3	2		
Central African Republic	11	11	6	13	6	9	13	11	15	5	14	13	12	3	13	11	14	15	14	11	14	10	3	13	4		
Eritrea	3	12	8	9	14	1	1	4	12	4	7	9	11	5	6	10	4	11	13	15	10	8	9	9	12		
Somalia	8	10	11	11	4	5	6	9	9	7	9	3	4	7	11	9	3	8	11	12	9	9	10	11	13		
Niger	6	15	15	14	13	3	5	8	7	8	15	11	14	11	4	5	12	7	4	8	6	4	12	8	6		
Zimbabwe	1	1	1	1	1	6	2	15	3	3	1	2	7	1	1	2	1	2	8	1	2	5	1	4	3		
Liberia	9	14	7	5	9	14	10	6	6	12	11	7	9	14	5	3	10	14	9	6	3	2	5	2	8		
Burundi	14	9	9	12	5	7	7	13	14	10	4	4	1	9	14	13	9	12	7	14	11	13	15	7	14		
<b>Democratic Republic of the Congo</b>	<b>10</b>	<b>5</b>	<b>4</b>	<b>10</b>	<b>12</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>10</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>13</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>11</b>	<b>4</b>	<b>10</b>	<b>5</b>		
Ranking of leading age-standardized rates of disability-adjusted life years (DALYs) relative to comparator countries in 2010																											
Country	Malaria	Diarrheal diseases	Protein-energy malnutrition	Lower respiratory infections	HIV/AIDS	Preterm birth complications	Tuberculosis	Congenital anomalies	Meningitis	Neonatal encephalopathy	Iron-deficiency anemia	Neonatal sepsis	Stroke	Interpersonal violence	Major depressive disorder	Sickle cell	Road injury	Syphilis	Maternal disorders	Ischemic heart disease	COPD	Drowning	Fire	Low back pain	Epilepsy		
Afghanistan	1	1	1	8	1	12	3	13	4	1	1	1	15	15	15	4	14	1	10	15	12	12	6	15	1		
Madagascar	5	3	5	1	2	6	1	1	1	2	5	10	14	10	6	8	4	13	4	13	8	6	3	12	6		
Togo	9	7	4	6	10	9	2	10	11	11	8	14	5	6	3	13	6	12	1	7	1	2	4	9	13		
Mozambique	15	4	3	2	13	8	10	2	7	15	6	13	1	9	4	6	12	14	7	1	4	14	8	13	12		
Sierra Leone	11	2	13	5	6	15	5	6	13	13	15	9	7	4	7	12	5	3	6	8	3	1	1	7	11		
Ethiopia	3	5	7	11	4	14	7	3	6	3	2	5	2	11	1	2	9	9	3	2	10	5	7	1	5		
Malawi	6	8	6	9	14	1	6	12	3	12	4	11	12	2	10	7	13	7	13	12	6	15	15	2	7		
Central African Republic	12	15	15	14	12	13	14	15	15	6	13	3	10	12	8	14	15	15	15	14	15	11	12	5	4		
Eritrea	4	9	9	3	5	3	9	4	8	5	11	8	9	8	14	5	8	6	11	9	5	7	11	10	10		
Somalia	7	12	12	12	8	4	12	5	10	7	9	6	8	7	12	3	7	2	14	6	7	8	13	14	9		
Niger	8	14	11	15	3	2	4	7	14	4	14	12	4	1	2	11	2	10	8	5	2	3	10	6	14		
Zimbabwe	2	6	2	13	15	7	11	11	2	8	10	2	6	13	13	1	10	5	2	3	13	13	2	3	2		
Liberia	13	11	8	10	7	11	8	9	12	14	7	15	3	5	5	10	3	8	12	4	14	4	5	8	15		
Burundi	14	10	10	7	11	5	15	8	5	10	3	7	13	3	11	9	11	4	9	10	9	9	14	11	8		
<b>Democratic Republic of the Congo</b>	<b>10</b>	<b>13</b>	<b>14</b>	<b>4</b>	<b>9</b>	<b>10</b>	<b>13</b>	<b>14</b>	<b>9</b>	<b>9</b>	<b>12</b>	<b>4</b>	<b>11</b>	<b>14</b>	<b>9</b>	<b>15</b>	<b>1</b>	<b>11</b>	<b>5</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>4</b>	<b>3</b>		
Ranking Legend	1 - 3			4 - 7			8 - 11			12 - 15																	