

Theme 3: Data Science

Use data to help us better understand the impact of conflicts on children.

CONFLICT

The Armed Conflict Location & Event Data Project (**ACLED**) provides real-time data on the locations, dates, actors, fatalities, and types of all reported political violence and protest events around the world.

POPULATION

WorldPop provides high-resolution geospatial data on population distributions, demographics, and dynamics, focusing on low and middle-income countries.

CONTEXT

UNICEF Indicator Data Warehouse that comprises children relevant data and indicators in all sorts of categories at country level.

The **WorldRiskIndex** data set contains multiple indicators at the country level ranging from hazard exposition to vulnerability by those events.

African-Countries (full table can be found at the end):

```
countries = ['Algeria', 'Angola', 'Benin', 'Botswana', 'Burkina Faso', 'Burundi',  
            'Cameroon', 'Cape Verde', 'Central African Republic', 'Chad', 'Comoros',  
            'Democratic Republic of Congo', 'Djibouti', 'Egypt',  
            'Equatorial Guinea', 'Eritrea', 'Eswatini', 'Ethiopia', 'Gabon',  
            'Gambia', 'Ghana', 'Guinea', 'Guinea-Bissau', 'Ivory Coast', 'Kenya',  
            'Lesotho', 'Liberia', 'Libya', 'Madagascar', 'Malawi', 'Mali',  
            'Mauritania', 'Mauritius', 'Mayotte', 'Morocco', 'Mozambique',  
            'Namibia', 'Niger', 'Nigeria', 'Republic of Congo', 'Reunion', 'Rwanda',  
            'Saint Helena, Ascension and Tristan da Cunha', 'Sao Tome and Principe',  
            'Senegal', 'Seychelles', 'Sierra Leone', 'Somalia', 'South Africa',  
            'South Sudan', 'Sudan', 'Tanzania', 'Togo', 'Tunisia', 'Uganda',  
            'Zambia', 'Zimbabwe']
```

ACLED Data

[ACLED CODEBOOK 2023 pdf](#)

ACLED_data_Africa.csv from 01/01/1997 to 17/11/2023

➔ Exact descriptions of every column can be found page 4 ff. in the Codebook.

RangeIndex: 341995 entries, 0 to 341994

Data columns (total 31 columns):

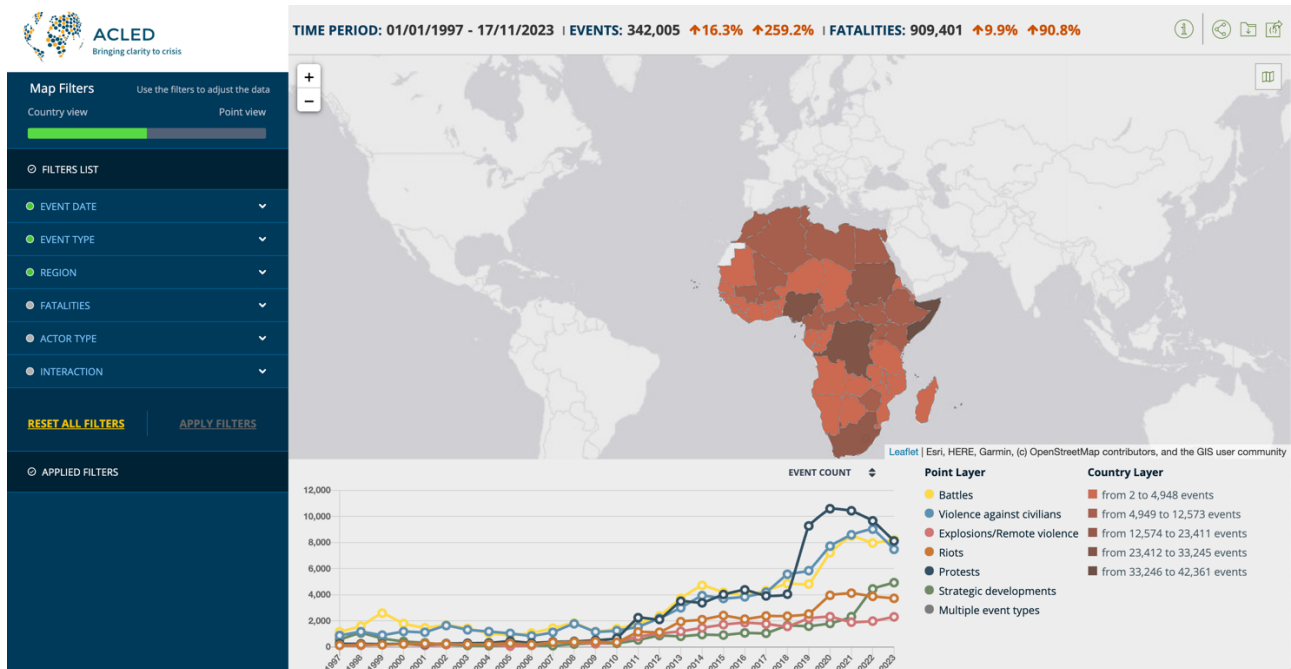
#	Column	Non-Null Count	Dtype
0	event_id_cnty	341995	non-null object
1	event_date	341995	non-null object
2	year	341995	non-null int64
3	time_precision	341995	non-null int64
4	disorder_type	341995	non-null object
5	event_type	341995	non-null object
6	sub_event_type	341995	non-null object
7	actor1	341995	non-null object
8	assoc_actor_1	91169	non-null object
9	inter1	341995	non-null int64
10	actor2	248765	non-null object
11	assoc_actor_2	68052	non-null object
12	inter2	341995	non-null int64
13	interaction	341995	non-null int64
14	civilian_targeting	102452	non-null object
15	iso	341995	non-null int64
16	region	341995	non-null object
17	country	341995	non-null object
18	admin1	341992	non-null object
19	admin2	339336	non-null object
20	admin3	167224	non-null object
21	location	341995	non-null object
22	latitude	341995	non-null float64
23	longitude	341995	non-null float64
24	geo_precision	341995	non-null int64
25	source	341995	non-null object
26	source_scale	341995	non-null object
27	notes	341995	non-null object
28	fatalities	341995	non-null int64
29	tags	72903	non-null object
30	timestamp	341995	non-null int64

dtypes: float64(2), int64(9), object(20)

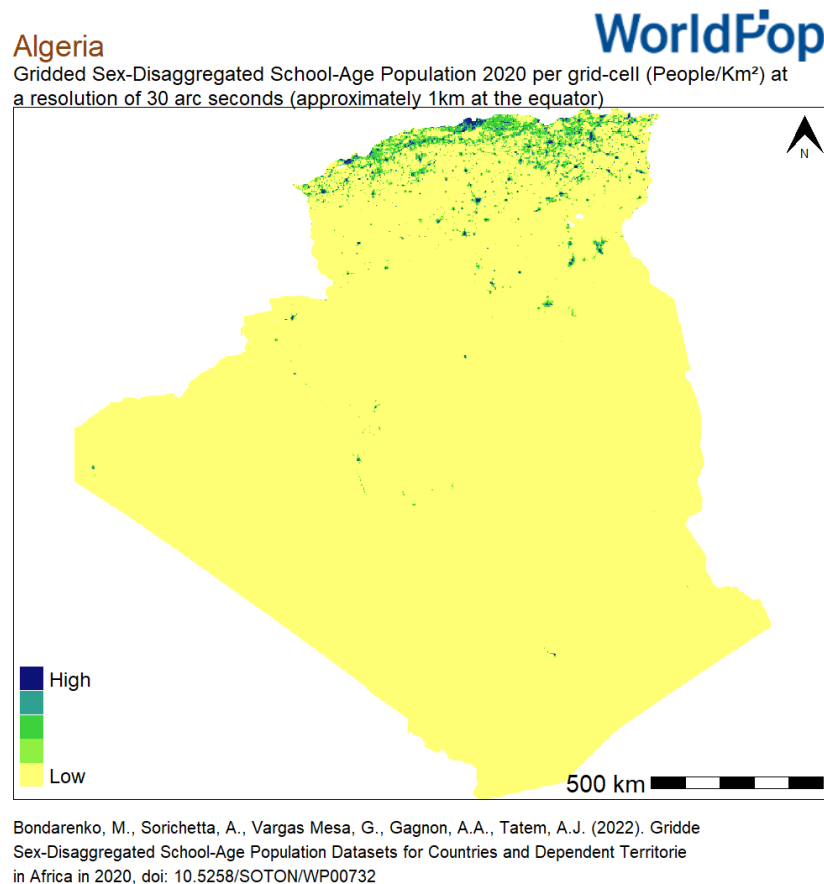
➔ **ACLED_Africa_recorded_events_per_year_per_country.xlsx** shows the number of recorded for that country per year.

country	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Algeria	141	48	66	170	250	268	208	142	108	197	309	219	239	127	345	209	264	283	356	357	540	701	2151	2174	1817	368	410	
Angola	260	512	1352	336	317	26	6	7	3	6	15	10	13	9	18	14	22	8	14	45	92	71	65	130	165	183	205	
Benin	2	3	2	1	3	1	2	2	1	3	1	1	2	10	7	14	10	7	8	17	39	40	67	165	163	264	314	
Botswana	1	1	0	1	0	0	1	6	3	2	2	2	2	2	4	0	1	5	4	6	5	12	12	14	11	16	22	
Burkina Faso	4	3	31	22	6	6	1	4	6	8	1	12	1	5	137	68	39	123	116	104	205	402	890	877	1863	2753	2080	
Burundi	217	116	163	503	629	442	223	77	75	133	29	105	75	99	27	15	12	74	1579	1191	841	952	803	654	607	463	286	
Cameroon	14	6	2	8	5	2	4	14	18	6	20	23	19	16	13	11	39	122	135	298	419	821	879	1531	1313	1070	1132	
Cape Verde	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	
Central African Republic	39	22	18	16	43	70	77	36	21	57	101	86	97	171	73	147	511	1047	352	300	448	611	309	585	948	404	392	
Chad	14	12	12	22	11	15	18	47	37	116	103	75	24	11	6	8	4	20	40	40	26	83	210	159	251	266	162	
Comoros	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	
Cote d'Ivoire	219	303	478	205	320	344	272	232	299	330	259	438	645	303	839	1020	831	1051	839	969	1064	1801	2623	3502	4184	4040	2751	
Djibouti	1	2	7	1	2	1	1	2	2	3	2	2	6	10	6	2	10	23	9	5	5	3	18	35	30	8	11	
Egypt	41	18	10	49	26	51	5	3	56	10	15	85	49	122	1496	415	2445	1589	1229	737	588	497	704	644	313	246	192	
Equatorial Guinea	3	2	0	2	1	1	1	3	2	1	2	2	6	1	1	2	1	2	1	8	9	8	3	7	3	3	2	
Eritrea	2	24	139	79	4	1	7	5	4	9	5	21	8	3	4	6	8	3	5	7	7	6	4	9	4	12	5	
Eswatini	6	5	2	6	2	4	9	2	4	3	10	1	7	11	49	17	11	8	6	3	9	31	36	186	241	83	80	
Ethiopia	23	60	73	146	54	233	116	124	127	89	44	113	100	191	83	160	141	132	379	1218	494	889	317	697	1875	1570	1388	
Gabon	1	2	3	2	4	1	1	3	1	4	0	2	8	3	1	7	20	14	20	26	19	30	47	36	46	54	80	
Gambia	3	1	4	9	15	13	13	5	4	5	2	4	4	3	4	6	3	8	23	14	40	11	18	29	27	10	10	
Ghana	5	4	2	10	8	7	17	7	3	3	5	11	20	14	9	46	52	49	92	121	114	103	185	348	182	289	272	
Guinea	3	34	42	166	70	14	10	11	15	7	46	15	36	24	9	36	91	40	54	47	68	142	237	664	227	236	271	
Guinea-Bissau	2	64	18	9	2	3	5	4	13	21	2	2	9	4	7	16	7	5	2	3	16	9	12	22	20	33	23	
Ivory Coast	14	14	73	121	34	134	168	101	45	28	6	22	5	124	224	70	98	100	71	67	105	74	226	464	222	110	77	
Kenya	142	180	193	190	165	211	165	148	159	140	420	453	141	162	156	380	660	469	327	290	941	642	480	579	636	1851	2292	
Lesotho	4	35	4	2	2	2	4	1	0	3	2	1	2	3	4	20	0	10	6	5	4	3	10	22	29	38	12	
Liberia	22	26	42	87	169	148	235	22	26	22	9	16	8	10	29	18	66	114	70	62	56	42	80	121	54	54	49	
Libya	2	10	2	5	3	5	2	6	7	7	1	6	6	6	698	286	552	1610	1430	1165	1040	797	1472	1421	264	257	171	
Madagascar	5	3	1	4	6	100	18	22	11	10	17	1	101	17	3	86	70	133	102	105	170	120	332	318	356	366	699	
Malawi	1	5	2	16	19	9	13	5	6	6	6	6	4	5	23	12	23	35	52	63	49	48	119	249	219	122	171	
Mali	14	3	10	4	5	2	3	3	2	10	12	21	10	18	29	277	314	158	176	167	473	751	822	1267	1355	1902	1929	
Mauritania	5	1	3	4	1	1	13	2	9	3	5	16	10	14	31	74	57	50	39	23	56	68	128	339	282	231	212	
Mauritius	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mayotte	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Morocco	10	13	15	18	8	10	12	6	18	14	15	11	6	15	197	84	107	137	126	110	185	238	876	1385	1641	1456	1683	
Mozambique	12	1	4	12	13	2	27	31	20	7	9	20	47	23	14	35	95	142	44	125	100	145	354	658	496	619	394	
Namibia	8	4	30	65	20	7	13	2	1	12	18	20	9	12	16	98	85	64	74	46	27	33	46	92	135	91	89	
Niger	27	40	10	10	9	41	6	17	9	8	31	28	16	10	10	9	25	20	72	82	56	168	371	550	431	882	644	
Nigeria	142	152	203	166	121	152	203	276	198	120	194	196	225	471	344	920	1049	1526	1685	1408	1642	2050	2439	3931	4546	4835	4052	
Republic of the Congo	91	42	75	6	5	42	3	7	10	1	3	0	9	4	0	6	3	19	30	39	17	16	18	15	32	22	12	
Reunion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rwanda	124	138	13	19	27	5	4	2	3	8	18	12	16	51	39	50	19	12	29	9	7	34	53	48	33	28	20	
Senegal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sierra Leone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
South Africa	82	84	73	91	103	109	92	88	93	48	187	235	368	306	307	1061	1042	1090	1511	1435	1047	1106	1601	1858	1978	2078	1862	
South Sudan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sudan	253	259	214	233	233	340	215	562	335	211	141	317	351	281	334	727	1040	1368	1367	1420	820	749	1584	1021	1581	2673	4782	
Tanzania	5	5	8	17	34	24	8	35	67	16	7	26	9	5	46	91	74	64	73	46	55	48	45	62	72	68	59	
Togo	9	13	3	3	4	3	4	3	25	1	1	1	5	18	13	19	44	14	18	10	59	46	29	68	34	49	36	
Tunisia	1	2	3	5	3	4	3	3	5	3	1	1	30	1	29	595	335	300	301	466	748	774	715	1461	1774	1352	861	720
Uganda	92	313	253	261	136	473	721	375	291	282	96	92	119	122	133	140	121	114	215	245	226	366	370	690	1165	666	525	
Zambia	12	14	12	21	18	4	34	31	59	75	111	22	47	17	33	62	94	114	108	126	38	59	38	101	113	89	58	
Zimbabwe	21	84	44	316	299	714	269	254	249	112	209	767	193	192	250	202	130	198	264	229	298	363	195	165	151	211	213	

➔ For a quick overview, the [ACLED Web-Dashboard](#) can be used:



Gridded Sex-Disaggregated School-Age Population in **2020** for all African countries at approximately **1km resolution**



File Descriptions (.tif – files):

DZA_M_PRIMARY_2020_1km	Male Primary-School-Age Population in 2020
DZA_F_PRIMARY_2020_1km	Female Primary-School-Age Population in 2020
DZA_F_M_PRIMARY_2020_1km	Female and Male Primary-School-Age Population in 2020
DZA_M_SECONDARY_2020_1km	Male Secondary-School-Age Population in 2020
DZA_F_SECONDARY_2020_1km	Female Secondary-School-Age Population in 2020
DZA_F_M_SECONDARY_2020_1km	Female and Male Secondary-School-Age Population in 2020

UNICEF Data Warehouse

Web Service

Select the following Dataflows for the ClimateChangeRiskIndex Data:

Note: the OBS_VALUE contains a string index (e.g. "Extremely High") the OBS_FOOTNOTE contains the actual numeric value (e.g. 9.5)

➔ At country level: **CCRI.csv**

CCRI - Children's Climate and Environment Risk Index

RangeIndex: 1305 entries, 0 to 1304

Data columns (total 14 columns):

#	Column	Non-Null Count	Dtype
0	REF_AREA	1305 non-null	object
1	Geographic area	1305 non-null	object
2	INDICATOR	1305 non-null	object
3	Indicator	1305 non-null	object
4	UNIT_MULTIPLIER	0 non-null	float64
5	Unit multiplier	0 non-null	float64
6	UNIT_MEASURE	1305 non-null	object
7	Unit of measure	1305 non-null	object
8	TIME_PERIOD	1305 non-null	int64
9	OBS_VALUE	1305 non-null	object
10	OBS_FOOTNOTE	1305 non-null	object
11	DATA_SOURCE	782 non-null	object
12	OBS_STATUS	0 non-null	float64
13	Observation Status	0 non-null	float64

dtypes: float64(4), int64(1), object(9)

	REF_AREA	Geographic area	INDICATOR	Indicator	UNIT_MULTIPLIER	Unit multiplier	UNIT_MEASURE	Unit of measure	TIME_PERIOD	OBS_VALUE	OBS_FOOTNOTE	DATA_SOURCE	OBS_STATUS
0	DZA	Algeria	CCRI_WATER_SCARCITY	Water scarcity	NaN	NaN	IDX	Index	2020	Extremely High	Value: 9.5	World Resources Institute (WRI) Aqueduct 3.0, ...	NaN
1	AGO	Angola	CCRI_WATER_SCARCITY	Water scarcity	NaN	NaN	IDX	Index	2020	Extremely High	Value: 8.3	World Resources Institute (WRI) Aqueduct 3.0, ...	NaN
2	BEN	Benin	CCRI_WATER_SCARCITY	Water scarcity	NaN	NaN	IDX	Index	2020	Medium-High	Value: 4.2	World Resources Institute (WRI) Aqueduct 3.0, ...	NaN
3	BWA	Botswana	CCRI_WATER_SCARCITY	Water scarcity	NaN	NaN	IDX	Index	2020	Extremely High	Value: 9.2	World Resources Institute (WRI) Aqueduct 3.0, ...	NaN
4	BFA	Burkina Faso	CCRI_WATER_SCARCITY	Water scarcity	NaN	NaN	IDX	Index	2020	Extremely High	Value: 9.7	World Resources Institute (WRI) Aqueduct 3.0, ...	NaN

CCRI Indicators (CCRI_Indicators.txt):

Water scarcity
Riverine floods
Coastal floods
Tropical cyclones
Malaria
Zika
Dengue
Aedes
Vector borne diseases
Heatwaves
Air pollution
Lead pollution
Pesticide pollution
Soil and water pollution
Climate and environmental shocks
Child health
Child nutrition
Maternal health
Child health and nutrition
Education
Water, sanitation, and hygiene
Poverty and Inequality
Communication assets
Social protection and economic empowerment
Poverty, communication assets, and social protection
Child vulnerability
Children's Climate and Environment Risk Index

➔ for Kenya at a subnational level: **Kenya_CCRI_DRM.csv**

➔ [GeoSight CCRI-DRM Dashboard](#)

CCRI_DRM - Children's Climate and Disaster Risk Subnational Index

RangeIndex: 4230 entries, 0 to 4229

Data columns (total 11 columns):

#	Column	Non-Null Count	Dtype
0	REF_AREA	4230 non-null	object
1	Geographic area	4230 non-null	object
2	INDICATOR	4230 non-null	object
3	Indicator	4230 non-null	object
4	GEO_CODE	4230 non-null	object
5	UNIT_MEASURE	4230 non-null	object
6	Unit of measure	4230 non-null	object
7	TIME_PERIOD	4230 non-null	int64
8	OBS_VALUE	4230 non-null	float64
9	OBS_FOOTNOTE	0 non-null	float64
10	DATA_SOURCE	0 non-null	float64

dtypes: float64(3), int64(1), object(7)

-> 47 unique REF_AREA values

	REF_AREA	Geographic area	INDICATOR	Indicator	GEO_CODE	UNIT_MEASURE	Unit of measure	TIME_PERIOD	OBS_VALUE	OBS_FOOTNOTE	DATA_SOURCE
0	KE030	Baringo County	CCRI_CHLD_CLIMATE_ENV_RISK_INDEX	Children's Climate and Disaster Risk Index	KEN_0001_V1	IDX	Index	2016	6.1	NaN	NaN
1	KE036	Bomet County	CCRI_CHLD_CLIMATE_ENV_RISK_INDEX	Children's Climate and Disaster Risk Index	KEN_0002_V1	IDX	Index	2016	4.6	NaN	NaN
2	KE039	Bungoma County	CCRI_CHLD_CLIMATE_ENV_RISK_INDEX	Children's Climate and Disaster Risk Index	KEN_0003_V1	IDX	Index	2016	5.3	NaN	NaN
3	KE040	Busia County	CCRI_CHLD_CLIMATE_ENV_RISK_INDEX	Children's Climate and Disaster Risk Index	KEN_0004_V1	IDX	Index	2016	5.2	NaN	NaN
4	KE028	Elgeyo Marakwet County	CCRI_CHLD_CLIMATE_ENV_RISK_INDEX	Children's Climate and Disaster Risk Index	KEN_0005_V1	IDX	Index	2016	4.5	NaN	NaN
...
4225	KE023	Turkana County	CCRI_CHLD_VULNERABILITY	Child vulnerability	KEN_0043_V1	IDX	Index	2016	8.1	NaN	NaN
4226	KE027	Uasin Gishu County	CCRI_CHLD_VULNERABILITY	Child vulnerability	KEN_0044_V1	IDX	Index	2016	3.8	NaN	NaN
4227	KE038	Vihiga County	CCRI_CHLD_VULNERABILITY	Child vulnerability	KEN_0045_V1	IDX	Index	2016	3.5	NaN	NaN
4228	KE008	Wajir County	CCRI_CHLD_VULNERABILITY	Child vulnerability	KEN_0046_V1	IDX	Index	2016	8.3	NaN	NaN
4229	KE024	West Pokot County	CCRI_CHLD_VULNERABILITY	Child vulnerability	KEN_0047_V1	IDX	Index	2016	6.8	NaN	NaN

4230 rows × 11 columns

CCRI-DRM Indicators:

CCRI_PV_ELEC - Access to Electricity
 CCRI_WS_PPL_S-I - Access to Improved Sanitation
 CCRI_WS_SCH_L1_W-SM - Access to Safe Water in Primary Schools
 CCRI_AEDES - Aedes
 CCRI_POLLUTION_AIR - Air pollution
 CCRI_DROUGHT - At least moderate drought
 CCRI_WS_PPL_H-B - Basic handwashing Facilities Access
 CCRI_PT_CHLD_Y0T4_REG - Birth registration
 CCRI_WS_SCH_M-TR - Boy to Toilet Ratio
 CCRI_CHLD_HEALTH - Child health
 CCRI_CHLD_HEALTH_NUTRITION - Child health and nutrition
 CCRI_CHLD_NUTRITION - Child nutrition
 CCRI_CHLD_PT - Child protection
 CCRI_CHLD_VULNERABILITY - Child vulnerability
 CCRI_Aedes_PopG_P - Children U18 at risk of Aedes (%)
 CCRI_Aedes_PopG - Children U18 at risk of Aedes (Estimates)
 CCRI_MaIPf_PopQ25_P - Children U18 at risk of PF Malaria (%)
 CCRI_MaIPf_PopQ25 - Children U18 at risk of PF Malaria (Estimates)
 CCRI_River_Pop50YrRp_P - Children U18 exposed to 50 year return period riverine floods (%)
 CCRI_River_Pop50YrRp - Children U18 exposed to 50 year return period riverine floods (Estimates)
 CCRI_ModDrought_PopQ50_P - Children U18 exposed to at least moderate drought (%)
 CCRI_ModDrought_PopQ50 - Children U18 exposed to at least moderate drought (Estimates)
 CCRI_Dengue_PopG_P - Children U18 exposed to Dengue (%)
 CCRI_Dengue_PopG - Children U18 exposed to Dengue (Estimates)
 CCRI_TX35_PopQ25_P - Children U18 exposed to extreme high temperatures (%)
 CCRI_TX35_PopQ25 - Children U18 exposed to extreme high temperatures (Estimates)
 CCRI_HWF_PopQ25_P - Children U18 exposed to high heatwave frequency (%)
 CCRI_HWF_PopQ25 - Children U18 exposed to high heatwave frequency (Estimates)
 CCRI_AirPol10_Pop_P - Children U18 exposed to outdoor air pollution (PM2.5 > 10µg/m3) (%)
 CCRI_AirPol10_Pop - Children U18 exposed to outdoor air pollution (PM2.5 > 10µg/m3) (Estimates)
 CCRI_AirPol20_Pop_P - Children U18 exposed to outdoor air pollution (PM2.5 > 20µg/m3) (%)
 CCRI_AirPol20_Pop - Children U18 exposed to outdoor air pollution (PM2.5 > 20µg/m3) (Estimates)
 CCRI_Zika_Pop_P - Children U18 exposed to Zika (%)
 CCRI_Zika_Pop - Children U18 exposed to Zika (Estimates)
 CCRI_VCI_Pop4YR_P - Children U18 living in areas with at most moderate Vegetation Condition Index (%)
 CCRI_VCI_Pop4YR - Children U18 living in areas with at most moderate Vegetation Condition Index (Estimates)
 CCRI_CONFLICT - Conflict
 CCRI_DENGUE - Dengue
 CCRI_DENGUE_ZIKA - Dengue and Zika
 CCRI_WS_PPL_W-DEP - Distance from Water Source
 CCRI_WASH_WATER - Drinking water access
 CCRI_IM_DTP3 - DTP3 Access

CCRI_EDUCATION - Education
CCRI_EXT_TEMP - Extreme high temperatures
CCRI_FOOD_SECURITY - Food Security
CCRI_ED_GPI - Gender parity (distance)
CCRI_ED_GPI_L0 - Gender Parity Index (GPI) for Pre-Primary Education Level
CCRI_ED_GPI_L1 - Gender Parity Index (GPI) for Primary Education Level
CCRI_ED_GPI_L23 - Gender Parity Index (GPI) for Secondary Education Level
CCRI_WS_SCH_F-TR - Girl to Toilet Ratio
CCRI_HEAT_STRESS - Heat stress
CCRI_HEATWAVE - High heatwave frequency
CCRI_CHLD_IMMUNIZATION - Immunization
CCRI_POLLUTION_AIR_IN - Indoor air pollution
CCRI_LIVELIHOODS - Livelihoods
CCRI_LIVELIHOODS_SP - Livelihoods and social protection
CCRI_NT_BW_LBW - Low-Birthweight Babies
CCRI_MALARIA_PF - Malaria PF
CCRI_MATERNAL_HEALTH - Maternal health
CCRI_MNCH_MMR - Maternal Mortality Ratio
CCRI_IM_MCV2 - MCV2 Access
CCRI_PV_CHLD_MON_POV - Monetary Poverty
CCRI_ED_NER_L1 - Net Enrolment Rate Primary
CCRI_ED_NER_L23 - Net Enrolment Rate Secondary
CCRI_WS_PPL_S-OD - Open Defecation
CCRI_IM_OPV3 - OPV3 Access
CCRI_OUT_OF_SCHOOL - Out of school
CCRI_ED_ROFST_L1 - Out-of-school rate Primary
CCRI_ED_ROFST_L23 - Out-of-school rate Secondary
CCRI_POLLUTION_AIR_OUT - Outdoor air pollution
CCRI_POLLUTION_AIR_OUT_ABS - Outdoor air pollution (Abs)
CCRI_POLLUTION_AIR_OUT_REL - Outdoor air pollution (Rel)
CCRI_IM_PCV3 - PCV3 Access
CCRI_WS_PPL_W-SM - Percentage of Households with Access to Safe Water
CCRI_FLOODS_RIVERINE - Riverine floods
CCRI_WASH_SANITATION - Sanitation access
CCRI_SCHOOL_ENROLLMENT - School enrollment
CCRI_CLIMATE_ENV_SHOCKS - Shocks and stresses
CCRI_MNCH_SAB - Skilled Assisted Birth (Coverage)
CCRI_SP - Social protection
CCRI_NT_ANT_HAZ_NE2 - Stunting Prevalence
CCRI_PT_CHLD_PREG - Teenage Pregnancy
CCRI_WS_SCH-TR - Toilet Ratio in Schools
CCRI_CME_MRY0T4 - Under 5 Mortality
CCRI_VECTOR_BORNE_DISEASE - Vector borne diseases
CCRI_WASH_SCHOOLS - WASH in schools
CCRI_WATER_SCARCITY - Water scarcity
CCRI_WASH - Water, Sanitation and Hygiene (WASH)
CCRI_ZIKA - Zika
CCRI_ZIKA - Zika
CCRI_WASH - Water, Sanitation and Hygiene (WASH)
CCRI_WATER_SCARCITY - Water scarcity
CCRI_WASH_SCHOOLS - WASH in schools
CCRI_VECTOR_BORNE_DISEASE - Vector borne diseases
CCRI_CME_MRY0T4 - Under 5 Mortality
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CCRI_WS_PPL_W-SM - Percentage of Households with Access to Safe Water
CCRI_IM_PCV3 - PCV3 Access
CCRI_POLLUTION_AIR_OUT_REL - Outdoor air pollution (Rel)
CCRI_POLLUTION_AIR_OUT_ABS - Outdoor air pollution (Abs)
CCRI_POLLUTION_AIR_OUT - Outdoor air pollution
CCRI_ED_ROFST_L23 - Out-of-school rate Secondary
CCRI_ED_ROFST_L1 - Out-of-school rate Primary

CCRI_OUT_OF_SCHOOL - Out of school
 CCRI_IM_OPV3 - OPV3 Access
 CCRI_WS_PPL_S-OD - Open Defecation
 CCRI_ED_NER_L23 - Net Enrolment Rate Secondary
 CCRI_ED_NER_L1 - Net Enrolment Rate Primary
 CCRI_PV_CHLD_MON_POV - Monetary Poverty
 CCRI_IM_MCV2 - MCV2 Access
 CCRI_MNCH_MMR - Maternal Mortality Ratio
 CCRI_MATERNAL_HEALTH - Maternal health
 CCRI_MALARIA_PF - Malaria PF
 CCRI_NT_BW_LBW - Low-Birthweight Babies
 CCRI_LIVELIHOODS_SP - Livelihoods and social protection
 CCRI_LIVELIHOODS - Livelihoods
 CCRI_POLLUTION_AIR_IN - Indoor air pollution
 CCRI_CHLD_IMMUNIZATION - Immunization
 CCRI_HEATWAVE - High heatwave frequency
 CCRI_HEAT_STRESS - Heat stress
 CCRI_WS_SCH_F-TR - Girl to Toilet Ratio
 CCRI_ED_GPI_L23 - Gender Parity Index (GPI) for Secondary Education Level
 CCRI_ED_GPI_L1 - Gender Parity Index (GPI) for Primary Education Level
 CCRI_ED_GPI_L0 - Gender Parity Index (GPI) for Pre-Primary Education Level
 CCRI_ED_GPI - Gender parity (distance)
 CCRI_FOOD_SECURITY - Food Security
 CCRI_EXT_TEMP - Extreme high temperatures
 CCRI_EDUCATION - Education
 CCRI_IM_DTP3 - DTP3 Access
 CCRI_WASH_WATER - Drinking water access
 CCRI_WS_PPL_W-DEP - Distance from Water Source
 CCRI_DENGUE_ZIKA - Dengue and Zika
 CCRI_DENGUE - Dengue
 CCRI_CONFLICT - Conflict
 CCRI_VCI_Pop4YR - Children U18 living in areas with at most moderate Vegetation Condition Index (Estimates)
 CCRI_VCI_Pop4YR - Children U18 living in areas with at most moderate Vegetation Condition Index (Estimates)
 CCRI_VCI_Pop4YR_P - Children U18 living in areas with at most moderate Vegetation Condition Index (%)
 CCRI_VCI_Pop4YR_P - Children U18 living in areas with at most moderate Vegetation Condition Index (%)
 CCRI_Zika_Pop - Children U18 exposed to Zika (Estimates)
 CCRI_Zika_Pop_P - Children U18 exposed to Zika (%)
 CCRI_AirPol20_Pop - Children U18 exposed to outdoor air pollution (PM2.5 > 20µg/m3) (Estimates)
 CCRI_AirPol20_Pop_P - Children U18 exposed to outdoor air pollution (PM2.5 > 20µg/m3) (%)
 CCRI_AirPol10_Pop - Children U18 exposed to outdoor air pollution (PM2.5 > 10µg/m3) (Estimates)
 CCRI_AirPol10_Pop_P - Children U18 exposed to outdoor air pollution (PM2.5 > 10µg/m3) (%)
 CCRI_HWF_PopQ25 - Children U18 exposed to high heatwave frequency (Estimates)
 CCRI_HWF_PopQ25_P - Children U18 exposed to high heatwave frequency (%)
 CCRI_TX35_PopQ25 - Children U18 exposed to extreme high temperatures (Estimates)
 CCRI_TX35_PopQ25_P - Children U18 exposed to extreme high temperatures (%)
 CCRI_Dengue_PopG - Children U18 exposed to Dengue (Estimates)
 CCRI_Dengue_PopG_P - Children U18 exposed to Dengue (%)
 CCRI_ModDrought_PopQ50 - Children U18 exposed to at least moderate drought (Estimates)
 CCRI_ModDrought_PopQ50_P - Children U18 exposed to at least moderate drought (%)
 CCRI_River_Pop50YrRp - Children U18 exposed to 50 year return period riverine floods (Estimates)
 CCRI_River_Pop50YrRp_P - Children U18 exposed to 50 year return period riverine floods (%)
 CCRI_MalPf_PopQ25 - Children U18 at risk of PF Malaria (Estimates)
 CCRI_MalPf_PopQ25_P - Children U18 at risk of PF Malaria (%)
 CCRI_Aedes_PopG - Children U18 at risk of Aedes (Estimates)
 CCRI_Aedes_PopG_P - Children U18 at risk of Aedes (%)
 CCRI_CHLD_VULNERABILITY - Child vulnerability
 CCRI_CHLD_PT - Child protection
 CCRI_CHLD_NUTRITION - Child nutrition
 CCRI_CHLD_HEALTH_NUTRITION - Child health and nutrition
 CCRI_CHLD_HEALTH - Child health
 CCRI_WS_SCH_M-TR - Boy to Toilet Ratio
 CCRI_PT_CHLD_Y0T4_REG - Birth registration
 CCRI_WS_PPL_H-B - Basic handwashing Facilities Access

CCRI_DROUGHT - At least moderate drought
 CCRI_POLLUTION_AIR - Air pollution
 CCRI_AEDES - Aedes
 CCRI_WS_SCH_L1_W-SM - Access to Safe Water in Primary Schools
 CCRI_WS_PPL_S-I - Access to Improved Sanitation
 CCRI_PV_ELEC - Access to Electricity
 CCRI_WS_PPL_S-I - Access to Improved Sanitation
 CCRI_WS_SCH_L1_W-SM - Access to Safe Water in Primary Schools
 CCRI_AEDES - Aedes
 CCRI_POLLUTION_AIR - Air pollution
 CCRI_DROUGHT - At least moderate drought
 CCRI_WS_PPL_H-B - Basic handwashing Facilities Access
 CCRI_PT_CHLD_Y0T4_REG - Birth registration
 CCRI_WS_SCH_M-TR - Boy to Toilet Ratio
 CCRI_CHLD_HEALTH - Child health
 CCRI_CHLD_HEALTH_NUTRITION - Child health and nutrition
 CCRI_CHLD_NUTRITION - Child nutrition
 CCRI_CHLD_PT - Child protection
 CCRI_CHLD_VULNERABILITY - Child vulnerability
 CCRI_Aedes_PopG_P - Children U18 at risk of Aedes (%)
 CCRI_Aedes_PopG - Children U18 at risk of Aedes (Estimates)
 CCRI_MaIPf_PopQ25_P - Children U18 at risk of PF Malaria (%)
 CCRI_MaIPf_PopQ25 - Children U18 at risk of PF Malaria (Estimates)
 CCRI_River_Pop50YrRp_P - Children U18 exposed to 50 year return period riverine floods (%)
 CCRI_River_Pop50YrRp - Children U18 exposed to 50 year return period riverine floods (Estimates)
 CCRI_ModDrought_PopQ50_P - Children U18 exposed to at least moderate drought (%)
 CCRI_ModDrought_PopQ50 - Children U18 exposed to at least moderate drought (Estimates)
 CCRI_Dengue_PopG_P - Children U18 exposed to Dengue (%)
 CCRI_Dengue_PopG - Children U18 exposed to Dengue (Estimates)
 CCRI_TX35_PopQ25_P - Children U18 exposed to extreme high temperatures (%)
 CCRI_TX35_PopQ25 - Children U18 exposed to extreme high temperatures (Estimates)
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 CCRI_EXT_TEMP - Extreme high temperatures
 CCRI_FOOD_SECURITY - Food Security
 CCRI_ED_GPI - Gender parity (distance)
 CCRI_ED_GPI_L0 - Gender Parity Index (GPI) for Pre-Primary Education Level
 CCRI_ED_GPI_L1 - Gender Parity Index (GPI) for Primary Education Level
 CCRI_ED_GPI_L23 - Gender Parity Index (GPI) for Secondary Education Level
 CCRI_WS_SCH_F-TR - Girl to Toilet Ratio
 CCRI_HEAT_STRESS - Heat stress
 CCRI_HEATWAVE - High heatwave frequency
 CCRI_CHLD_IMMUNIZATION - Immunization
 CCRI_POLLUTION_AIR_IN - Indoor air pollution
 CCRI_LIVELIHOODS - Livelihoods
 CCRI_LIVELIHOODS_SP - Livelihoods and social protection
 CCRI_NT_BW_LBW - Low-Birthweight Babies
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 CCRI_MATERNAL_HEALTH - Maternal health

CCRI_MNCH_MMR – Maternal Mortality Ratio
CCRI_IM_MCV2 – MCV2 Access
CCRI_PV_CHLD_MON_POV – Monetary Poverty
CCRI_ED_NER_L1 – Net Enrolment Rate Primary
CCRI_ED_NER_L23 – Net Enrolment Rate Secondary
CCRI_WS_PPL_S-OD – Open Defecation
CCRI_IM_OPV3 – OPV3 Access
CCRI_OUT_OF_SCHOOL – Out of school
CCRI_ED_ROFST_L1 – Out-of-school rate Primary
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CCRI_POLLUTION_AIR_OUT – Outdoor air pollution
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CCRI_WS_SCH-TR – Toilet Ratio in Schools
CCRI_CME_MRYØT4 – Under 5 Mortality
CCRI_VECTOR_BORNE_DISEASE – Vector borne diseases
CCRI_WASH_SCHOOLS – WASH in schools
CCRI_WATER_SCARCITY – Water scarcity
CCRI_WASH – Water, Sanitation and Hygiene (WASH)
CCRI_ZIKA – Zika

WorldRiskIndex

[WorldRiskIndex Website](#)

WorldRiskIndex-Meta-Data.xlsx
WorldRiskIndex-Data-Africa.xlsx

Indicator Descriptions
Data set



WorldRiskIndex

Exposition

Earthquakes

Annually Averaged Population Exposed To Strong Intensity (Peak Ground Acceleration 0.1 g Or Higher)
Annually Averaged Population Exposed To Strong Intensity (Peak Ground Acceleration 0.1 g Or Higher)
Annually Averaged Population Exposed To Severe Intensity (Peak Ground Acceleration 0.2 g Or Higher)
Annually Averaged Population Exposed To Severe Intensity (Peak Ground Acceleration 0.2 g Or Higher)
Annually Averaged Population Exposed To Extreme Intensity (Peak Ground Acceleration 0.4 g Or Higher)
Annually Averaged Population Exposed To Extreme Intensity (Peak Ground Acceleration 0.4 g Or Higher)

Tsunamis

Annually Averaged Population Exposed To Strong Intensity (Coastal Run-Up Height 1.0 m Or Higher)
Annually Averaged Population Exposed To Strong Intensity (Coastal Run-Up Height 1.0 m Or Higher)
Annually Averaged Population Exposed To Severe Intensity (Coastal Run-Up Height 3.0 m Or Higher)
Annually Averaged Population Exposed To Severe Intensity (Coastal Run-Up Height 3.0 m Or Higher)
Annually Averaged Population Exposed To Extreme Intensity (Coastal Run-Up Height 5.0 m Or Higher)
Annually Averaged Population Exposed To Extreme Intensity (Coastal Run-Up Height 5.0 m Or Higher)

Coastal Floodings

Annually Averaged Population Exposed To Strong Intensity (Inundation Height 0.5 m Or Higher)
Annually Averaged Population Exposed To Strong Intensity (Inundation Height 0.5 m Or Higher)
Annually Averaged Population Exposed To Severe Intensity (Inundation Height 1.0 m Or Higher)
Annually Averaged Population Exposed To Severe Intensity (Inundation Height 1.0 m Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (Inundation Height 2.0 m Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (Inundation Height 2.0 m Or Higher)

Riverine Floodings

Annually Averaged Population Exposed To Strong Intensity (Inundation Height 0.5 m Or Higher)

Annually Averaged Population Exposed To Strong Intensity (Inundation Height 0.5 m Or Higher)

Annually Averaged Population Exposed To Severe Intensity (Inundation Height 1.0 m Or Higher)

Annually Averaged Population Exposed To Severe Intensity (Inundation Height 1.0 m Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (Inundation Height 2.0 m Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (Inundation Height 2.0 m Or Higher)

Cyclones

Annually Averaged Population Exposed To Strong Intensity (Sustained Speeds 119 km/h Or Higher)

Annually Averaged Population Exposed To Strong Intensity (Sustained Speeds 119 km/h Or Higher)

Annually Averaged Population Exposed To Severe Intensity (Sustained Speeds 154 km/h Or Higher)

Annually Averaged Population Exposed To Severe Intensity (Sustained Speeds 154 km/h Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (Sustained Speeds 178 km/h Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (Sustained Speeds 178 km/h Or Higher)

Droughts

Annually Averaged Population Exposed To Strong Intensity (6-Month SPEI 2.0 Or Higher)

Annually Averaged Population Exposed To Strong Intensity (6-Month SPEI 2.0 Or Higher)

Annually Averaged Population Exposed To Severe Intensity (6-Month SPEI 2.5 Or Higher)

Annually Averaged Population Exposed To Severe Intensity (6-Month SPEI 2.5 Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (6-Month SPEI 3.0 Or Higher)

Annually Averaged Population Exposed To Extreme Intensity (6-Month SPEI 3.0 Or Higher)

Sea Level Rise

Potentially Exposed Population To Projected Sea Level Rise (Inundation Height Up To 1.0 m)

Potentially Exposed Population To Projected Sea Level Rise (Inundation Height Up To 1.0 m)

Vulnerability

Susceptibility

Socio-Economic Development

Prospects Of Healthy Lifespans

Life Expectancy At Birth

Life Expectancy At Age 70

Prospects Of Education And Training

Mean Years Of Schooling

School Life Expectancy From Primary To Tertiary Education

Prospects Of High Standards Of Living

Gross National Income Per Capita

Gross National Savings Per Capita

Prospects Of Self-Reliance

Net Volume Of Official Aid Received Per Capita

Net Volume Of Personal Remittances Received Per Capita

Socio-Economic Deprivation

Lacking Access To Civil Infrastructure

Access To At Least Basic Drinking Water Services

Access To At Least Basic Sanitation Services

Lacking Access To Energy Infrastructure

Access To Electricity

Access To Clean Cooking Fuels

Lacking Access To Communication Technology

Fixed Broadband Subscriptions

Mobile Cellular Subscriptions

Lacking Food Security

Prevalence Of Undernourishment

Average Dietary Energy Supply Adequacy

Societal Disparities

Economic Disparities

Pre-Tax Income Gini Coefficient

Pre-Tax Top-Buttom Decile Income Share Ratio

Demographic Disparities

Young Age Dependency

Old Age Dependency

Gender Disparities

Gender Disparity In Adolescent Fertility

Gender Disparity Of Mean Years Of Schooling

Gender Disparity Of School Life Expectancy From Primary To Tertiary Education

Gender Disparity Of Labour Force Participation

Vulnerable Populations Due To Violence, Conflicts And Disaster

Refugees, Asylum Seekers, Returned Refugees And Other Displaced

Refugees, Asylum Seekers, Returned Refugees And Other Displaced

Refugees, Asylum Seekers, Returned Refugees And Other Displaced

Internally Displaced Persons Due To Natural Disasters

Internally Displaced Persons Due To Natural Disasters

Internally Displaced Persons Due To Natural Disasters

Internally Displaced Persons Due To Violence And Conflict

Internally Displaced Persons Due To Violence And Conflict

Internally Displaced Persons Due To Violence And Conflict

Vulnerable Populations Due To Diseases And Epidemics

Prevalence Of HIV And AIDS

Prevalence Of Tuberculosis And Respiratory Diseases

Prevalence Of Neglegted Tropical Diseases And Malaria

Prevalence Of Other Infectious Diseases

Lack Of Coping Capacities

Recent Societal Shocks

Recent Societal Shocks Due To Natural Disasters

Average Population Affected By Disasters In The Last 5 Years

Average Population Affected By Disasters In The Last 5 Years

Recent Societal Shocks Due To Violence And Conflicts

Average Population Killed In Conflicts In The Last 5 Years

Average Population Killed In Conflicts In The Last 5 Years

State And Government

Democratic Principles

Control Of Corruption

Rule Of Law

Governmental Responsibilities

Government Effectiveness

Political Stability And Absence Of Violence And Terror

Health Care Capacities

Personnel Capacities

Medical Doctors And Practitioners

Nurses And Midwives

Structural Capacities

Hospital Beds

Current Health Expenditures per Capita

Vulnerabale Groups

Maternal Mortality Rate

U5 Child Mortality Rate

Lack Of Adaptive Capacities

Research And Education

Education Dimension

Government Expenditure On Primary And Secondary Education Per Capita

Number Of Teachers In Primary And Secondary Education

Gross Enrolment Rate In Primary And Secondary Education

Research Dimension

Government Expenditure On Research And Development Per Capita

Personnel In Research And Development

Gross Enrolment Rate In Tertiary Education

Long-Term Health And Deprivation Effects

Long-Term Deprivative Effects

Risk Due To Unsafe Water And Sanitation Sources

Risk Due To Particulate Matter Air Pollution

Risk Due To Child And Maternal Malnutrition

Long-Term Health Effects

Percentage Of Children With Third DTP Dosage

Percentage Of Children With Third Polio Dosage

Percentage Of Children With Second Measles Dosage

Investment Capacities

Gross Fixed Capital Formation Per Capita

General Consumer Price Instability

country	ISO 3166 codes	abbreviation
Algeria	12	DZA
Angola	24	AGO
Benin	204	BEN
Botswana	72	BWA
Burkina Faso	854	BFA
Burundi	108	BDI
Cameroon	120	CMR
Cape Verde	132	CPV
Central African Republic	140	CAF
Chad	148	TCD
Comoros	174	COM
Democratic Republic of Congo	180	COD
Djibouti	262	DJI
Egypt	818	EGY
Equatorial Guinea	226	GNQ
Eritrea	232	ERI
Eswatini	748	SWZ
Ethiopia	231	ETH
Gabon	266	GAB
Gambia	270	GMB
Ghana	288	GHA
Guinea	324	GIN
Guinea-Bissau	624	GNB
Ivory Coast	384	CIV
Kenya	404	KEN
Lesotho	426	LSO
Liberia	430	LBR
Libya	434	LBY
Madagascar	450	MDG
Malawi	454	MWI
Mali	466	MLI
Mauritania	478	MRT
Mauritius	480	MUS
Mayotte	175	MYT
Morocco	504	MAR
Mozambique	508	MOZ
Namibia	516	NAM
Niger	562	NER
Nigeria	566	NGA
Republic of Congo	178	COG
Reunion	638	REU
Rwanda	646	RWA
Saint Helena, Ascension and Tristan da Cunha	654	SHN
Sao Tome and Principe	678	STP
Senegal	686	SEN
Seychelles	690	SYC
Sierra Leone	694	SLE
Somalia	706	SOM
South Africa	710	ZAF
South Sudan	728	SSD
Sudan	729	SDN
Tanzania	834	TZA
Togo	768	TGO
Tunisia	788	TUN
Uganda	800	UGA
Zambia	894	ZMB
Zimbabwe	716	ZWE