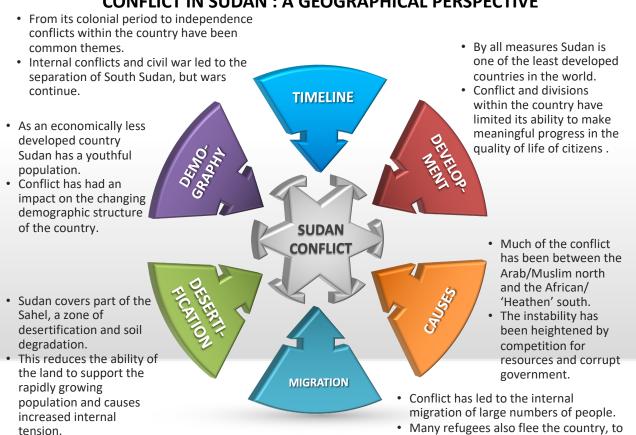
CONFLICT IN SUDAN: A GEOGRAPHICAL PERSPECTIVE

Sudan has seen many internal conflicts since colonial times. One result of this was the split between South and North Sudan. Since then, however, conflicts have occurred on the border between the two countries and civil war continues in Sudan itself. Each of the interrelated factors shown on the diagram below will be discussed to illustrate the complex nature of the causes and impacts of the conflicts. A final section looks at possible solutions and the road to peace.



CONFLICT IN SUDAN : A GEOGRAPHICAL PERSPECTIVE



other African countries and to Europe.

TIMELINE From the BBC site

- **2500-1500BC** Kerma kingdom, based in the southern part of Nubia, present-day northern and central Sudan. It is finally absorbed into the New Kingdom of Egypt.
- 1550-1069BC Much of Sudan is part of the New Kingdom of Egypt.
- **1070BC 350AD** Following the late Bronze Age collapse of civilisations across the eastern Mediterranean, the Kingdom of Kush emerges as a Nubian state centred on the confluences of the Blue Nile and White Nile rivers.
- **350-1500** Area sees sequence of medieval Christian kingdoms; Nobatia, Makuria, Alodia, and Daju.
- **639-641** Muslim Arabs conquer Byzantine Egypt and then attempt to invade Nubia but are defeated.
- 14th and 15th Centuries Bedouin tribes overrun most of Sudan.
- **1504-1821** Sultanate of Sennar or Blue Sultanate, based in Sudan, northwestern Eritrea and western Ethiopia.
- **1821** Ottoman ruler of Egypt, Muhammad Ali of Egypt, conquers northern Sudan. Although technically under the Ottoman Empire, Muhammad Ali styles himself as Khedive of a virtually independent Egypt.
- **1881** Muhammad Ahmad, the Mahdi or Guided One, leads a successful war against Ottoman-Egyptian military rule in Sudan.
- **1884-85** Siege of Khartoum. The British-appointed governor, General Gordon is killed when the city falls to Mahdist forces.
- 1885 Muhammad Ahmad dies.
- **1890s** Britain seeks to re-establish their control over Sudan, nominally in the name of the Egyptian Khedive, but in reality as a British colony. Britain fears other colonial powers would take advantage of Sudan's instability to acquire territory previously annexed to Egypt.
- **1896-98** General Kitchener leads military campaigns, culminating in a decisive victory at the Battle of Omdurman in September 1898.
- **1899-1955** Sudan is under joint British-Egyptian rule. In reality, Sudan is effectively administered as a British colony.
- **1952** Egyptian revolution triggers a move towards Sudanese independence. Egypt and Britain allow both Sudanese regions, north and south, to vote on independence.
- 1956 Sudan becomes independent.
- **1955-1972** First Sudanese Civil War, between north and south over demands for more regional autonomy by southern Sudan region. Some 500,000 are estimated to have been killed. A 1972 peace agreement fails to satisfactorily dispel tensions.
- **1969** Colonel Gaafar Nimeiry carries out a coup. Parliament and political parties are abolished.
- 1977 Limited political pluralism introduced

1983-2005 - Second Sudanese Civil War. Between the central Sudanese government and the Sudan People's Liberation Army. Largely a continuation of the first civil war. The war leads to the independence of South Sudan in 2011. Some two million people die as a result of war, famine and disease caused by the conflict.

1989 - Colonel Omar al-Bashir carries out a military coup. Al-Bashir appoints himself president in 1993

2003-2020 - War in Darfur between the Sudan Liberation Movement (SLM) and the Justice and Equality Movement (JEM) rebel groups against the government, which they say is oppressing Darfur's non-Arab population. The government responds with a campaign of ethnic cleansing against Darfur's non-Arabs. The UN estimates up to 300,000 are killed in the fighting.

2009 - International Criminal Court issues an arrest warrant for President Bashir on charges of war crimes and crimes against humanity relating to the conflict in Darfur.

2011 - South Sudan gains independence following years of war with the central government in Khartoum.

2019 - Army ousts President Bashir after months of protests against his rule.

2020 - Sudan signs peace deal with the Sudan Revolutionary Front (SRF), a coalition of rebel groups from the western region of Darfur and the southern states of South Kordofan and Blue Nile, to end the fighting in Dafur.

2023 - <u>Power struggle within the military government</u> sees months of widespread fighting between the regular army and members of the paramilitary Rapid Support Forces (RSF). Hundreds die and some five million people are forced to flee their homes.

CAUSES

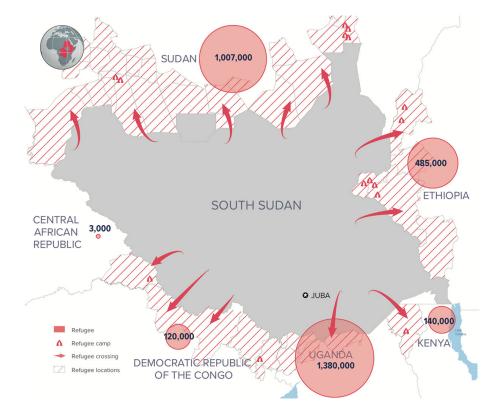
- There has been a long history of conflicts within Sudan and the fundamental cause relates to ethnic, religious and cultural differences and divisions that exist within Sudanese society. Although there are many cultural differences across Sudan the fundamental spilt is between the Arabs of the north and the Africans of the south. The conflict has now lasted so long that the divisions have created both animosity between the different groups and the perceived need to seek revenge for past misdeeds, mistreatment and atrocities committed.
- Originally part of the Ottoman empire and under Egyptian rule, later in cooperation with Britain, it was effectively a British colony from the 1890's until the 1950's. While a colony the British administration favoured the north of Sudan in terms of economic and political investment, neglecting the south and fomenting strong feelings of resentment.
- Becoming independent in 1956, the south continued to be marginalised and underdeveloped and a civil war continued from this date until the late 1970's, essentially between north Sudan and south Sudan which demanded more regional autonomy. A second civil war raged from 1983

- to 2005 which had similar causes and exacerbated the droughts, famines and epidemics that occurred, further deepening the divisions.
- A war in Darfur took place after this as a result of the oppression of the non-Arab population in Darfur, and it is claimed that ethnic cleansing took place furthering hostility between the two factions. A secondary cause was the increasing conflict between semi-nomadic pastoralists and sedentary farmers which was intensified by population pressure and the climate change induced desertification and degradation of the land.
- The battle for and conflict over resources is, then, another important theme to consider as a cause for Sudan's continued conflict. Much of the agriculture is subsistence and the combination of population increase, droughts and soil degradation have limited food supplies leading to shortage and famine. There has also been conflict over other resources that can be sold on the world market, particularly oil. This has led to the exploitation of these resources by foreign transnational companies which is seen as a form of neo-colonialism. Much of this oil is in the south of Sudan and conflict between the south and the government in the north resulted in the independence of South Sudan being granted in 2011.
- During the course of the conflicts various political and military/paramilitary groups have developed and any discussion of the causes of conflicts and civil wars must consider them. In Darfur the Sudan Liberation Movement and the Justice and Equality Movement opposed the central Government. In the latest Civil War (the third) which began in 2023 and still rages on, the Rapid Support Force based in south and west Sudan is fighting against troops loyal to the central Government. This latest conflict has had a disastrous impact on economic and political aspects of the country and has caused real hardship to the citizens.

MIGRATION

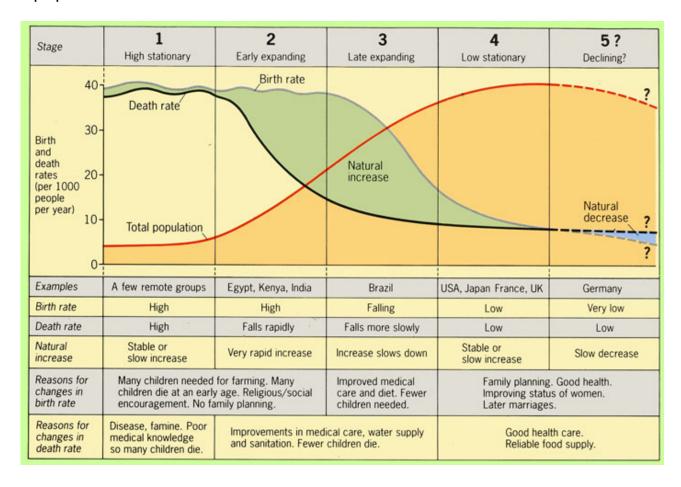
- Migration is generally a response to conflict in a country, but there are
 occasions when the movement of people whether voluntary or forced can
 further exacerbate the divisions.
- Seasonal migration is common in large parts of Sudan as nomadic pastoralists have traditionally sought fresh pastures determined by rainfall intensity and distribution. As rainfall totals decline and rainfall variability increases as a result of climate change more pressure is put on the nomadic farmers and tensions, brought about by drought and food insecurity, may result.
- In other parts of Sudan, particularly in the south and west around Darfur farming tends to be sedentary either arable or pastoral, but drought and the depletion of natural resources has increased tensions and conflict between different farming groups. These problems and tensions are made worse by the population pressure produced by the continuing high population growth rates of the country. Sedentarisation is increasing, but

- pressure still exists as the area of available valuable farmland is reduced due to climate change and desertification.
- Rural-urban migration has been a common theme in the latter half of the last century and in the last 20 years or so. This has produced a period of rapid urbanisation and it is estimated that the urban population of Sudan now stands at 35% of the total population having risen from around 10% in 1960.
- This migration is driven by 2 main sets of circumstances, Push Factors and Pull Factors. The Push Factors in the rural areas are population growth and pressure on the land, leading to food insecurity, crop failures and famine, combined with conflicts and wars. People are 'pulled' to the urban areas by the chance of employment, better housing, health services and education.
- Khartoum in Sudan has grown significantly, in 1956 the population was around 250,000, by 2000 it was 3.5 millions and it now stands at 6.5 millions with a growth rate of 3%. It is estimated that 50% of the population live in the informal sector in the poor conditions found in slums and squatter settlements. Juba, the capital city of South Sudan with a population of 500,000 has grown at a similar rate and has similar problems, in 2021 a survey found that 30% of the migrants had moved there because of war/conflict and 70% because of drought and famine.
- Significant levels of migration and refugee movement occur both within Sudan and Internationally. Most of the migration beyond the borders of Sudan is to neighbouring countries in Africa, but there is a growing amount of migration outside Africa, notably across the Mediterranean to Europe. The migration can be classified in several ways depending on its causes. Political Migration is caused by wars, conflicts, corruption or persecution, Social and Economic Migration takes place to find a better life either within Sudan or internationally, and finally it is possible to categorise a new type of migration, Environmental Migration where land degradation and ecologic stress caused by climate change drive people away from threatened areas.
- In just 100 days of the present civil war conflict in Sudan the UN estimated that 4 million people had been displaced, 3 million of these within the borders of Sudan and almost 1 million to neighbouring countries. These are, however, just preliminary reports and estimates since it is impossible to gain access at the moment to certain areas. Many of these people are housed in displacement camps which are overcrowded with poor medical services and there have already been cases of infectious diseases reported. A similar situation exists in South Sudan, over 2 million people have been internally displaced and a similar number have moved to neighbouring countries. The map below shows recent migrations of refugees beyond the borders of South Sudan to the neighbouring countries including Sudan itself.

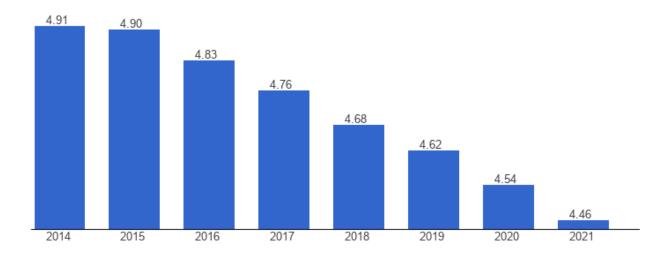


DEMOGRAPHY

 One of the most useful models for the study of changing Birth Rates, Death Rates and Population Growth Rates (Natural Increase) as a country develops is the Demographic Transition Model. The model initially saw a country pass through 4 stages of the cycle over time, more recently a fifth stage has been added as some countries begin to exhibit a phase of population decline.

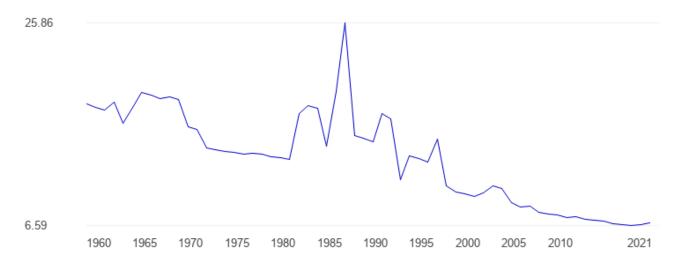


- Sudan is probably in late stage 2 of the cycle, progressing to stage 3, Birth Rates are high and beginning to fall, Death Rates are falling and the rate of Natural increase is steep, but beginning to slow. The country will progress to stage 4 as quickly as it can to stabilise the population growth and have low Birth and Death Rates, allowing it to concentrate on the health, well-being and economic prosperity of its citizens. It is likely that conflicts and corruption in the country have slowed and will continue to slow the transition of the country through to a more developed status.
- The Birth Rate in Sudan is high, but beginning to fall. The Crude Birth Rate is the number of births per year for every 1000 of the population, in 2023 this stood at 30.7/1000 having fallen from over 45/1000 in 1970, it is expected to be nearer 20/1000 not long after 2050. For comparison the UK Birth Rate was just over 11/1000 in 2023.
- This fall is mirrored by the fall in the Fertility Rate, the average number of births per woman which now stands at just over 4, having fallen from over 7 in 1970. The graph below shows the change in recent years.

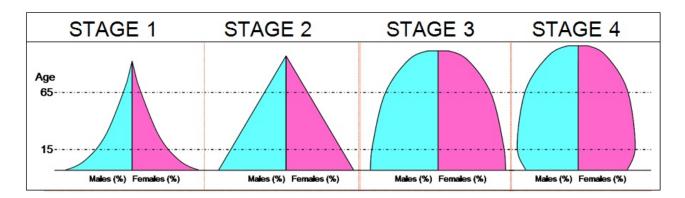


- Falling Birth and Fertility Rates are promoted by a number of factors; the development of society to be more urbanised and industrial when women are more likely to have an economic role, health and sanitation improvements to lower the Infant Mortality Rate, education and the increased use of contraceptives. In countries such as Sudan strong birth control policies and the role of NGO's and the WHO are essential, these are made difficult in an environment of conflict and corruption where they are unable to function efficiently.
- The Death Rate in Sudan is also high, but has been falling for some years.
 It is likely, however, that this fall could have been more rapid without the
 wars and corruption which have limited the ability to respond to soil
 degradation, famine and floods. The same factors have had a negative
 effect on health policies and health services and their ability to respond to
 disease and malnutrition.
- In 2022 the Crude Death Rate was 6.7 per 1000 of the population. We can compare this to the UK at 9.1, bear in mind that Sudan has a much more

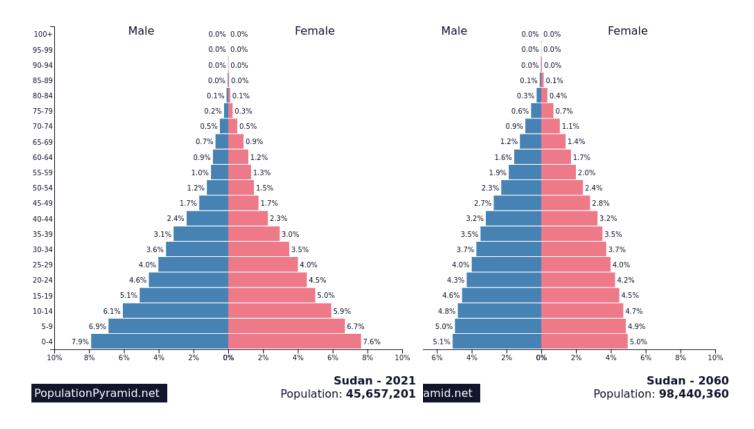
- youthful population with a high % of the population under 16, whereas the UK has a much higher % over 65. A better comparison would be an age specific death rate such as the Infant Mortality Rate, the death of children under the age of 1 per 1000 of the population per year, in the Uk it was 3.5/1000 in 2023 and in the Sudan 38/1000.
- The graph below shows detail of the changing Death Rate over recent times. Although the general trend is down it is obvious that there are marked spikes where the Death Rate has risen dramatically. 1988 is particularly prominent when the rate peaked at over 25/1000. This was a year of floods and famine caused by climate change, extreme weather events and soil degradation brought about by desertification, and there is no doubt that the conflicts, corruption and human rights abuses (looting, raiding, displacement and abduction) that were common in the 1980's reduced the ability of the country to respond to these disasters.



- A Population Pyramid is a way to show the age-sex structure of the population of a country at any given time. This structure will develop and change as a country moves through the stages of the Demographic Transition. The diagram below shows the changes to the population structure of a country as it passes though the first 4 stages of the Transition. Of particular importance is the % of the population in the age ranges 0-14, 15-64 and 65 and over. This allows us to calculate the Dependency Ratio, the ratio between the working and productive population in the middle age range and those that are, on the whole, dependent on their production, those under 16 and those 65 and over. Youthful populations like those in stage 2 and early stage 3 have a large proportion of their population under 16 who are dependent, whereas when a country reaches stage 4 it is an ageing population with a larger and larger % of the population who are over 65 and are dependent on the working population.
- The Population Pyramid of Sudan for 2021 shows it to be towards the end of stage 2 and entering stage 3. A period when it may be about to benefit from the Demographic Dividend, a period when there is a bulge in the



pyramid in the ages 15-64 and the % under 16 declines and before the % 65 and over begins to grow significantly. Less money will need to be spent on health care, education can improve, infrastructure and economic output will improve. This was the basis of the 'Economic Miracle' of East Asia, and there is no reason why it cannot occur in Sub Saharan African countries like Sudan. This is a short period, however, before the country shows an ageing population structure and resources are needed to care for a growing elderly population. There is no doubt that if the internal conflict and corruption continue Sudan will be much less able to take advantage of the Demographic Dividend.

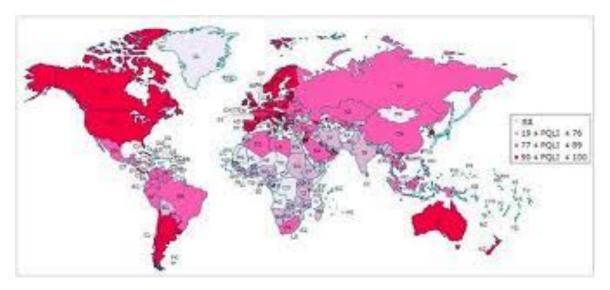


• The Population Pyramid for 2021 shows a youthful population with a large % under 16, but by 2060 Sudan should be able to benefit from the Demographic Dividend as the 15-64 age % grows and the country will have a large proportion of the total population in that working, productive age range. At this stage the burden of a large over 65 population has yet to cause a significant drain on resources. As you can see the population is

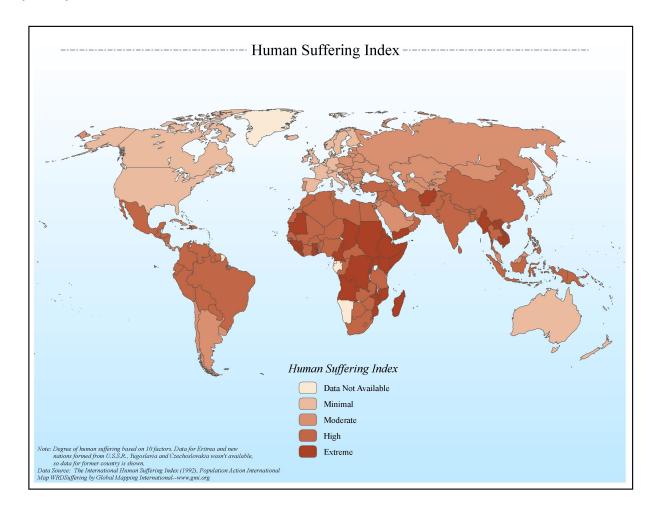
- predicted to double in size in total without significant percentages existing in the dependent age groups.
- A collision of cultures, religions and ethnicities in Sudan is a major demographic factor that both helped cause conflicts and shows the negative impact of conflicts. The internal conflict has been simplified as a north/south divide between the northern Arab, Muslim population making up 70% of the total population and the indigenous 'black', but culturally diverse, Sub-Saharan African tribes. The situation is obviously more complex than this particularly if we consider that it is estimated that over 90% of the population are Muslims.
- There is also a division between the nomadic population of Arabian descent traditionally involved in nomadic pastoralism and the sedentary arable and pastoral farmers of the south and west. This conflict is more pronounced during periods of scarce resources when the northern Arab peoples who hold the political power have been criticised for undertaking ethnic cleansing of the indigenous sector of the population particularly in the Darfur region to the south and west.

DEVELOPMENT

- By any measure of 'development' it is clear that Sudan and the recently seceded South Sudan are Less Economically Developed Countries, and that internal conflicts and corrupt Governments have limited their ability to progress and hindered growth potential.
- Gross National Income (GNI) is a well accepted measure of economic development. It is an indication of the 'wealth' of a country, measuring the total domestic and foreign earnings per capita of the population of the country. Countries are ranked as High Income, Middle Income or Low Income, both countries are classified as Low Income countries.
- The GNI per capita adjusted using Purchasing Power Parity (PPP) in 2022 was \$4,150 for Sudan and even lower at \$1,040 for South Sudan. This can be compared to the European average of \$54,585 and the Sub-Saharan Africa average of \$1,638.
- Modern measures of Development focus more on quality of life, health and well-being of citizens. The Physical Quality of Life Index (PQLI) rates



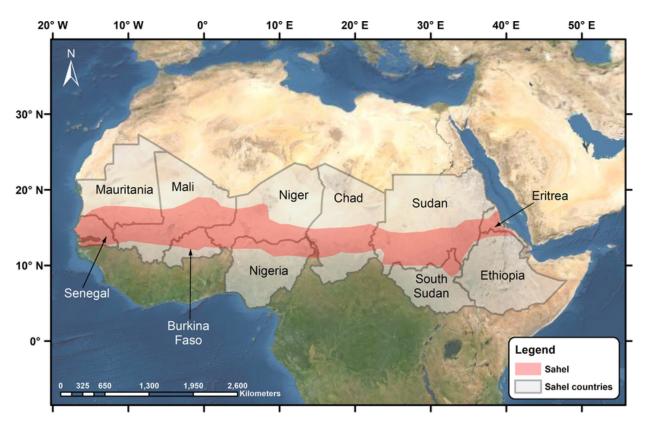
- countries in terms of Life Expectancy, the Infant Mortality Rate and Adult Literacy and scores countries from 100 for best to 0 for worst. A country figure of around 90 or more is generally accepted as Developed.
- An even more up to date measure of the quality of life produced by WorldData uses 35 indicators split into 7 factors including Political and Economic Stability, Civil Rights, Health Services and Safety; it ranks Sudan last of 132 countries with particularly low scores on stability and civil rights.
- The Human Development Index (HDI) is the most accepted measure of the level of Development of a country. Developed by the United Nations it combines an economic measure, Purchasing Power Parity (PPP) per capita with a social measure based on Adult Literacy and the number of years of schooling, and a demographic measure, Life Expectancy. Values for the HDI range from 0-1, the most developed countries score above 0.9 and the least developed score below 0.6. Sudan scored 0.508 on the HDI in 2022 illustrating generally poor levels of development.
- The International Human Suffering Index (IHSI) is based on 10 indicators genuinely affecting the true overall quality of life. As well as economic measures it also includes access to drinking water, personal freedom and daily calorific supply as a percentage of requirements. It may be that this measure is best suited to assess the impact of conflicts, wars and corruption in a country. A country classified in the High and Extreme suffering categories is likely to be one enduring conflicts such as Sudan and South Sudan. The map below shows that Africa in general scores poorly on this index.



Conflicts within Sudan have had a negative effect on water resources, livelihoods and shelter. Education and health have suffered and there is now a health service crisis with diseases like cholera spreading and a severe measles outbreak taking place in 2020. In 2023 it was estimated that 80% of hospitals had shut down because of the civil war. This has added to the humanitarian crisis that exists in Sudan, children suffer from malnutrition, access to clean water is limited and children miss out on important vaccinations. It has been called a public health disaster and has been made all the worse by rampant inflation and ecological degradation which has limited food production.

DESERTIFICTION

 Desertification in northern Africa is the southward spread of Saharan desert and semi-arid conditions leading to soil degradation and soil erosion both by wind and water leaving barren wastelands. This has led to the designation of the Sahel, a transitional zone between semi-arid conditions of the southern Sahara and the wetter Savanna lands further south.



 Desertification has both physical and human causes; the physical causes are climatic and environmental/ecological, and include climate change, although it must be remembered that climate change itself is induced by human activities. Sudan has a semi-arid/Savanna climate experiencing high temperatures all year, above 30 Celsius in summer, with low total rainfall of around 250 - 800mm, 90% of which falls in summer. The climate and rainfall totals are extremely variable and unreliable with periods of drought common, often coinciding with El Nino oscillation events as in the 1970's when rainfall totals were 100-200mm lower than average and famines resulted. The sparse vegetation, grassland and limited woodland of savanna lands is severely threatened by lower rainfall totals and greater rainfall variability.

- Climate Change and Global Warming have brought even faster desertification to this already fragile environment. In the last 25 years or so the desert has moved south in Sudan by 50km and 60 million hectares of land has been degraded.
- Desertification has clear human causes and these are based on the population pressure produced by a rapidly expanding population that puts increasing stress on the land. The present growth rate of the population of Sudan is 2.6% giving the country a population doubling time of only 29 years. It is likely, however, that the growth rate will fall in the coming years and that it will be around the year 2060 before the population doubles to about 90-100 million. This population pressure combines with climatic variability and climate change to cause farming practices and human activities that accelerate land degradation and desertification.
- Deforestation has taken place to open up more land for farming to increase food production, and provide fuelwood and building materials for the rapidly growing population. The more open land is liable to more soil erosion and degradation, fewer trees mean less interception of rainfall and more overland flow which aids soil erosion. With fewer trees less water is recycled and rainfall totals lower further.
- Overstocking is taking place to feed the growing population. This leads to greater numbers of cattle per hectare, eventually to above the carrying capacity of the land, overgrazing occurs leading to soil loss and degradation.
- Over-cultivation and poor farming methods also promote desertification.
 Farmers increasingly adopt a system with shorter fallow periods and in rain fed areas this leads to crop failure and soil erosion. Excessive irrigation to improve crop yields lowers the water table and leads to water shortages, soil salinisation and falling crop yields which exposes the land to degradation.
- Malnutrition, starvation and ultimately famine are a direct result of desertification and these have been common events in Sudan over the past 50 years or so. Drought and land degradation are often triggers for a crisis, and it is worse in countries such as Sudan where conflicts and poor food distribution are both a cause and result of the crises. War, drought and desertification often work hand in hand to cause the displacement of people both within Sudan and to other countries. The loss of cultural identity caused by these migrations further undermines social stability promoting more conflict.

 Desertification results in economic losses and the depletion of natural resources further reducing the capacity for a country like Sudan to combat the problems and so producing a spiral of decline and conflict. Afforestation and improved agricultural practices are needed to combat the problem of desertification, but both require funding which is hard to find in a country with the levels of war, conflict and corruption that exist in Sudan.



 A Great Green Wall is proposed for the Sahel, sponsored by the World Bank and the UN it proposes 8000 km of woodland stretching along the southern edge of the Sahara desert. The 15km deep area of trees will help stop the southern spread of the Sahara, and using trees adapted to the local drought conditions the scheme aims to restore 50 million hectares of arable land, stimulate local initiatives, help local economies and help prevent out migration of the population.

THE ROAD TO PEACE

- Conflicts and civil wars have been an almost constant feature of life in Sudan since its independence in 1956, so it is clear that there are no easy solutions, even the secession of South Sudan has done very little to placate the waring factions.
- The United Nations is involved in trying to broker a solution to the continuing conflict and stresses that a negotiated settlement is needed. In view of the long years of conflict, continued bad feeling between and bad actions by (including abduction, sexual violence and victimisation of children) both sides it will be difficult to reach a compromise. The UN, the African Union, the USA and Saudi Arabia have attempted to facilitate reconciliation between the two sides. It is essential that humanitarian access is granted to supply food and resources and prevent further disasters. The political situation, a backdrop to much of the conflict, will

- only improve when more of the population is given more of a say in the running of the country, a move towards democracy.
- The poor conditions that exist in Sudan, education, housing, health, inequalities and food supply that are a cause and a consequence of the conflict can only truly be improved through the development of the country. By developing the economy it will be possible to invest in education, health services, improve the infrastructure such as roads and water supply, and reduce levels of suffering within the country. As a country develops it improves its population Dependency Ratio, enjoys the Demographic Dividend and reduces the inequalities that exist between the core and the peripheral regions of the country that are a cause of the conflict.
- It is unfortunate that the improvements and developments needed are less likely to occur when civil war, conflict and fighting continue. It is difficult for foreign countries and companies to have the confidence to invest in a country ravaged by war.
- Aid is one way that investment can reach Sudan to help it overcome problems of food supplies, water supplies, heath and education services and the fragile, damaged infrastructure. In 2023 the UN promised \$1.5 billion of aid from international donors for Sudan, but this can do little more than plaster over the cracks in the humanitarian situation rather than bringing lasting improvement or help Sudan address the Millennium Development Goals set by the UN.
- Foreign Direct Investment (FDI) is certainly one way to help Sudan on the path to development, particularly if foreign trans-national corporations invest in the country. Sudan has tried to attract this sort of investment by setting up Export Processing Zones and Free Trade Zones like the one on the Red Sea coast. Here companies are attracted by lower taxes, lower labour costs and reduced set-up costs, the host country benefits from the boost to the economy through the processing of its goods, wages to workers and the chance to encourage subsidiary industries. The hope is that Cumulative Causation and the Multiplier Effect will stimulate economic growth and the development of a core industrial region.
- A major problem with this policy is the development of the core of Khartoum, the Nile valley and the Red Sea coast at the expense of the south and west. This may further exaggerate the regional disparities that exist in the country that are a major cause of the conflict.
- Finally, Sudan needs to address the problem of desertification caused by climate change and poor farming methods which has increased tensions in the country. This includes afforestation and the planting of the Great Green Wall, improving farming methods by reducing overgrazing, limiting monoculture and growing drought resistant crops like millet, and water management policies such as earth dams, terracing and small scale irrigation projects in the more isolated and stressed areas, which unfortunately are the hardest places to access and fund.