**Report of the UN Special Rapporteur on the right to adequate housing to the   
52nd session of the Human Rights Council**

**The right to adequate housing and climate change**

**Questionnaire**

***Impact of climate change on the right to adequate housing***

*In real life*

1. In your country, what have been the main effects of the climate crisis, on the enjoyment of the right to adequate housing? Please specify whether there have been any climate-induced impacts on the security of tenure, availability, affordability, accessibility, habitability, location and cultural adequacy of housing, including climate crisis related displacement.[[1]](#footnote-1)

Climate crisis like floods, draughts, heavy rains, severe tropical storms and wild fires are extremely influential in Sudanese housing. Considering that crisis effects are related to the formal responses and actions towards causes and consequences, due to poverty and lack of adequate housing regularities and polices, houses collapse, fire, services systems failure, traffic accidents, epidemic diseases and homelessness are the main indicators of climate crisis effects in urban and rural areas of the country.

Considering high urban growth rate under the pressure of poverty, slums and informal settlements are the alternatives in urban areas in Sudan. The main shelter materials in Sudan are made of natural floors, natural roofing and natural walls as a housing characteristics (formal and informal units) survey result of a sample of 5000 households in urban areas shows that only 30.2% have finished floors, 50.8% have finished walls and 50.5% have finished roof (CBS- MICS- 2014), which means the majority of dwellers (rural & urban) are under risk of natural disasters and climate conditions (heat, cold, rain…etc) and are less able to secure a good quality of life. For example tens of household lost their shelter because of wild fire in Kasala state and Blue Nile state 2022 and thousands of houses collapsed, millions of people became homeless and hundreds were killed during the rainy season in 2020. (Press release- Sudan News Agency- September 2020)

Moreover, due to urban sprawl and week government and planning policies, some new developments are lack of services and constructed on flood-prone areas for example Al Wadi Alakhdar in Khartoum state and Kubom village South Darfur state and others, while some old settlements became hazardous locations. Here are some examples of climate crisis effects on housing sector:

1. **Global warming and heat**

In cities, dwellers depend on air conditioning and cooling systems which are expensive and high energy consumers. Considering poor services and facilities in Sudanese cities, black out and unstable services caused damages to household equipments and systems. And as policesimposed dwellers to be responsible of almost 100% of services and that increase taxes as well rich people use oil and non environmental systems to fight heat waves during summer, while the poor (majority) suffer the most.

1. **Floods and heavy tropical storms:**

As mentioned above millions of people face homelessness and death during rainy seasons as houses collapsed in rural areas and informal settlements. But actually, even in urban areas and formal buildings people suffer, as the most challenge facing housing sector during rainy seasons is facilities and services systems failure: unstable electrical supply, lack of improved garbage disposal systems and roads damages are the norm. Sewage systems and ponds (oxidation/evaporation ponds) in cities usually leaks and flood over during rainy season and sewage seep into the ground, for example; Wad Difaiaa station flooding over in Khartoum causing health disasters and pollution. Under poverty and because of unimproved sanitation facilities and shortage of garbage disposal system pollutants find their way to underground water and water sources, Cholera is epidemic in Sinnar state and Blue Nile state.

Moreover, Rate of road accidents is higher not only because of damages but also people killed due to electrical shocks and open public sanitation manholes. And transportation between regions and cities almost stopped and some bridges collapsed. And due to poor infrastructures houses and most of public spaces like schools and hospitals become inaccessible especially for old, kids and people with special needs.

1. **Displacement and climate crisis:**

Civil war, political crisis and natural disasters are the main reasons behind migration and displacement in Sudan. As people move and migrate looking for opportunities and safer places for themselves and their families, urban areas set to be the favourite destination for the majority which means immense pressure on services, facilities and infrastructures. Draught in North Kurdofan and North Darfur caused to displace nomadic groups to move to wet areas in Southern states causing conflicts with the farmers in those areas. Due to lack of adequate housing regularities and polices, slums and informal settlements are increasing during the last decades, for example, the famine and desertification in 1983 caused to displace millions of people escaping from danger in their rural areas to safer places and there are thousands of people live in camps around big cities like Khartoum Niala, Kasala and aldamazin, the vast majority refuse to return to their homelands for many reasons related to the root cause of climate crisis or unbalanced development polices (opportunities). People who were displaced because of floods usually settle near their homeland in inhabitable shelters. Slums, camps or informal settlements are usually hazardous locations, it is under the risk of natural disasters and climate conditions and it is source of pollution due to household activities that lack improved services and facilities. Moreover, IDPs are under the risk of eviction from the local authorities and under attack from hosting communities most of the time, women and children suffer the most.

1. Are there difference show the climate crisis affects the right to adequate housing in urban and rural areas? If yes, is there an interrelationship between the two?

Considering that most of the various definitions of poverty cannot be entirely separated from housing conditions, as poverty affect housing cost, quality and location, housing poverty in Sudan comprises: lack of adequate housing regularities & policies, spatial segregation, marginalization and pollution. Due to political and socioeconomic factors, there is a big gab in development processes between rural and urban areas and within urban areas itself. Referring to housing poverty, rural and urban areas are extremely affected by climate crisis and the difference between the two is in the type of effect not the size of damages, still the poorest dwellers in both suffer the most.

1. Are there groups distinctly affected in the enjoyment of their right to adequate housing as a result of the climate crisis? Please describe in what way.

Spatial segregation is one of the main characteristics of housing patterns in Sudan and is a challenge as well. As however, urban population livelihood pattern changed towards industry and services, in Sudan, culture and communities are still ethnical oriented (agricultural/grazing), as all the documents and master plans of the urban areas show that settlements and quarters were distributed on tribal bases (the dwellers of each quarter are from the same ethnic). Referring to poverty; Minorities, people with special needs, poor, women and children are vulnerable population and suffering violation of their housing rights (social, economic, political and cultural rights) affected by climate crisis.

Climate crisis is challenging because it is fast, immediate and usually severe. Hence, victims are facing; eviction, living in hazardous locations, lack of services and public facilities, inhabitable shelters (rudimental materials and week structures), poor infrastructures and mobilization facilities and they suffer discrimination (gender/racial) from the hosting communities. They depend on humanitarian aid from NGOs and charity as the governmental response to their needs is very poor and slow, and due to lack of building capacity projects for housing rights and polices in Sudan most of the aid and fund is directed towards food, water and health aid.

1. How is the right to adequate housing ensured for persons that have been internally or internationally displaced by the climate crisis? How and under what conditions is their right to voluntarily return ensured?

In Sudan, legislations and frameworks don’t comprise housing rights and the right to adequate housing, which means access to adequate housing for the displaced groups, is not ensured. The percentage of the national income to be invested in housing either through the public sector or the (HCF) was always below the (UN) standard percentages for developing countries, hence building new affordable settlements or upgrading old ones is not part of the national development agenda which make voluntary return for the affected groups difficult as their housing rights are not ensured.

When housing has been damaged or lost due to climate-induced events, what has been the related impact on the lives, health and livelihoods of the affected populations?

Considering housing rights, housing damage or lost effect comprises: losing security of tenure, eviction, sudden poverty, inaccessibility to resources and opportunities, homelessness, bad quality of life and discrimination. Here are some impacts and risks facing victims due to housing lost:

* Immediate death due to destruction or because of dangerous insects or animals
* Lack of food, drinking water or health aids
* Poor access to resources and opportunities (health, education, work...etc)
* Threat and vulnerability
* Gender and racial discrimination
* Health problems and under risk of pollutants
* Bad quality of life

Considering needs priorities, people who lack basic needs (affordable house) are less able to fight for their political, social, economic and cultural rights.

1. How have people been able to access redress and compensation for damages to or loss of their housing as a result of the climate crisis and extreme weather events? What are the main obstacles to accessing timely redress and compensation, and what could be effective solutions?

Due to lack of housing rights regularities and legislations, there are no housing rights advocates and no reference cases of redress and compensation for the affected groups. The norm here is formal declarations and governmental promises to provide aids and shelter (not durable and inadequate) they sometimes promise to rehabilitate the damaged houses and planning the areas, but no action on Site. This is probably for the following reasons:

* Poor government resources and structures
* Lack of political will
* Land speculations and corruption
* Lack of housing rights regularities and policies
* Lack of awareness of housing rights and adequate housing
* Planning new settlements without due consideration for the needs of the people and adequacy standards and fails to attract any takers.

1. Please indicate any key rulings of national courts and tribunals protecting tenants and home owners from the impact of the climate crisis or on their right to adequate housing or related to climate induced displacement? Please also describe their outcome and impact?

However being a part of United Nations Community and have signed the international declaration of Human rights, Sudan lack legislations and regularities that improve access to adequate housing and ensure housing rights. National courts and tribunals often accept or receive climate crisis impact cases.

*In measures*

1. Please explain how energy efficiency, green urban planning, climate mitigation and adaptation policies and programmes take into account the right to adequate housing. What measures have been taken to ensure that they do not have any (unintended) discriminatory impact on particular population groups?

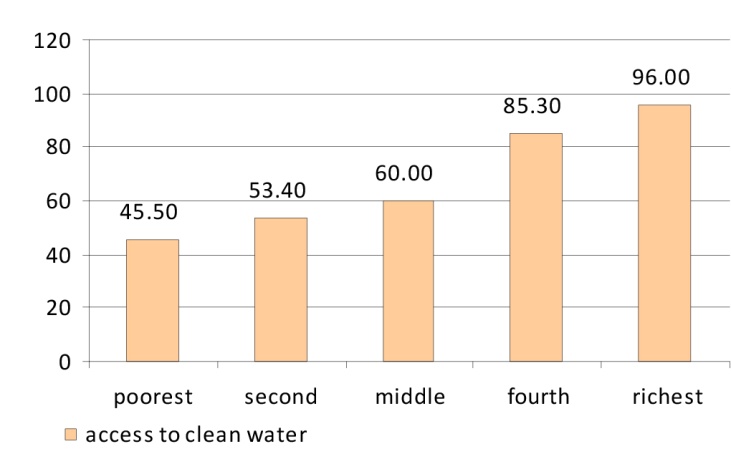
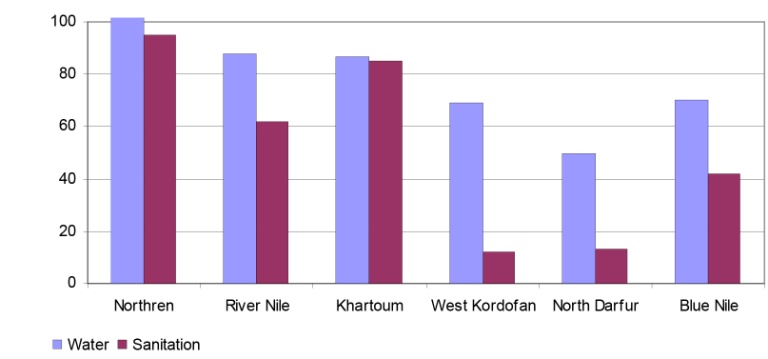
Housing and Construction Fund (HCF) is the main actor in housing sector in Sudan and housing rights and adequate housing not a part of its mandate and objectives. In the absence of ministry of housing and planning; Energy efficiency, green urban planning, climate mitigation and adaptation policies and programmes are not addressed in strategic planning and development polices and not taken into account most of the time. As mentioned above, planning policies are based on class differentiation/discrimination strategies and the number of low-income households in urban areas far exceeds the affordable housing units available, thus and referring to spatial segregation, poverty, marginalization and ethnical discrimination is very clear in urban areas in Sudan. For example; drinking water availability versus wealth index (Fig: 1), and water and sanitation services in states (Fig: 2). actually, that is not only affecting the affordability of services but also efficiency and sustainability. It is important to address that, women and children suffer the most.

Figure 1: CBS- MICS-2014

Figure 2: CBS- MICS-2014

1. Please explain how natural disaster preparedness, response and recovery/reconstruction strategies and plans ensure non-discrimination?

Referring to above answers, there are no preparedness and quick response strategies or plans, and any type of recovery promises will be affected by marginalization, poverty and discrimination based on spatial segregation.

1. What are the main barriers to addressing and mitigating the adverse impacts of climate change on the realization of the right to adequate housing?

* Poor government resources and structures
* Lack of political will
* Poor capability of forecasting and preparedness
* Lack of housing rights and climate change regularities and policies
* Weak formal responses to environmental issues
* Lack of awareness of housing rights and adequate housing

***Impact of housing on climate change***

1. How does the housing sector in rural and urban areas contribute to climate change? It may be helpful to think in terms of:

* energy consumption for heating, cooling, cooking, lighting of housing;
* urban sprawl and related climate impacts (soil sealing, commuter traffic etc.);
* increase of average per capita living space;
* water use;
* emission of pollutants;
* climate impact of construction and used construction materials;
* deforestation, desertification and loss of biodiversity caused by housing development projects.

Please provide as well any statistical information on the climate impact of the housing sector compared to other sectors in your country.

Firstly, it is very difficult to find statistics and access to housing data in Sudan, as it’s not allowed for political reasons or the available data either incomplete, out- dated, inappropriately or biased figures. Types of pollution in water, air, and soil caused by housing sector in Sudan are mainly described as a result of dwellers activities and construction industry, and all types are harmful to human health and environment.

**Air pollution and energy consumption**

Air pollutants in Sudan includes building materials construction and industries which produce greenhouse gases, toxic elements like cement dusts and households activities that produce methane, Co, Co2, So2…etc like cooking and heating with solid fuels, burning waste and the exhaust emissions from vehicles and the installed electricity generated from fossil fuel. All of which are ozone depleting substances and health-damaging pollutants.

3,500MW is the electricity generation capacity from hydro and thermal sources in Sudan, and the country consumed approximately 5.1 million tons of oil products in 2016, approximately 40% consumed for thermal electricity generation and 17% for transport(1). A housing characteristics (formal and informal units) survey result of a sample of 5000 households in urban areas shows that about 33% of surveyed household without access to electricity, 40.7% of urban dwellers use solid fuels for their basic energy needs including cooking and heating, 69.8% of dwellers cook their food in kitchens, and only 58.8 of urban dweller have access to Liquefied Petroleum Gas (CBS-MICs-2014)

**Urban sprawl and related climate impacts**

Urban sprawl is influential climatic changes, as the crowd, traffic congestions and its consequences increase pollution and the production of ozone depleting substances and greenhouse gases. Urban sprawl tends to variation in land levels as some quarters are higher than others, which means an inversion layer in the air, unless winds mix the air there will be depression (smog) and accumulating pollution (affecting micro climate of the city). It is important to mention that horizontal expansion polices and high urban growth rates are the main reasons behind urban sprawl, which tend to soil erosion, damaging forests and large agricultural area, which means less oxygen in future and affecting bio diversity.

**Water/soil Pollution and climate change:**

The Improved sanitation facility in urban areas cover only 69% of urban households (5% of urban households depend on open defecation), pit latrine and septic tank systems are the most common forms of wastewater treatment and the major pollutants of water in urban areas, as sewage seep into the ground, underground water and water sources Dwellers washed their cars and clothes near rivers and water sources, animals and livestock leave their dung in open areas that is usually washed in to water sources (rivers, wells, and surface water trenches), especially during flood and rainy seasons. Contamination and degrading water quality are harmful to human an environment and threat to land uses and biodiversity inside and outside water sources.

1. What measures are being implemented in rural and urban areas to reduce and eliminate the adverse impacts of the housing sector on the climate? How successful have been these programmes?

No formal measures were being taken or adopted to reduce climate changes that relating to housing sector, however there are some voluntary efforts from civil NGOs in the fields of desertification and soil erosion like encouraging planting trees inside and outside houses and some advocacy campaigns for green land use policies and campaigns against housing construction expansion that damages frosts, for example; stooping construction of Sunnut project in El Sunnut forest- Khartoum state.

1. What are the main barriers to reducing and eliminating the adverse impacts of the housing sector on the climate?

* Poor government resources and structures
* Urban planning polices and strategies that lack adequate housing concepts
* Poverty (high growth rates, urban sprawl and pollution)
* Weak formal responses to environmental issues
* Lack of awareness of housing rights and adequate housing
* privet sector investments without due consideration to environment and climate change issues (Lack of legislations)

***Towards*** ***a just transition to a rights-compliant, climate-resilient and carbon-neutral housing***

This part of questionnaire cannot be answered as Sudan is not yet engaged in climate resilient and carbon- neutral housing movement and agreements. There are no frameworks or legislations regarding those issues, especially, those related to housing sector.

1. What specific legislation, policies, or programmes have been adopted to put in place and finance a just transition to a rights-compliant, climate-resilient and carbon-neutral housing for all, without discrimination?

Not applicable

1. What measures have been taken to ensure that the costs of green transition in the housing sector are fairly shared between public authorities, taxpayers, homeowners, and tenants/renters or other affected interest groups, and to ensure the continued affordability of housing?

Not applicable

1. What adaptation strategies are needed to ensure the continued habitability of housing in the face of the climate crisis? (Protection from e.g. heat, flooding, extreme weather, etc.)

Not applicable

1. How are different interest groups, including marginalized communities, home owners and tenants, being consulted, and able to participate inthe design, implementation, monitoring and evaluation of:

* legislation, policies, or programmes been adopted that provide for specific measures to ensure the realization of the right to adequate housing in the face of the climate crisis;
* natural disaster preparedness, response and reconstruction, as well as in mitigation and adaptation efforts;
* Measures to reduce and eliminate the adverse impacts of the housing sector on climate.

1. What is the role of international cooperation, technology transfer and development assistance of States and multilateral agencies to ensure a just transition?

Not applicable

1. What are the main barriers to achieving such a just transition?

***Other issues***

1. Please use this space to indicate any issue that should be considered for this report.

Spatial/residential segregation is one of the challenging issues facing housing rights and adequate housing in Sudan. As per (UN), the process of urbanization describes a shift in population from one that is dispersed across small rural settlements in which agriculture is the dominant economic activity towards one where the population is concentrated in larger, dense urban settlements characterized by industrial and service activities. In Sudan, however urban population livelihood pattern changed towards industry and services, the culture and communities still ethnical (agricultural/grazing) oriented, as all the documents and master plans of the urban areas show that settlements and quarters were distributed on tribal bases (the dwellers of each quarter are from the same ethnic). Spatial/residential segregation is extremely influential on shifting communities towards housing rights and green urban planning.

Government, local authorities, civil sociality NGOs, local communities and stakeholders had to regulate actions, interactions and decisions, to developing frameworks and regulations to enhance housing rights in urban areas and rural areas. It is important to understand the meaningfulness of displacement indictors, address and prospect the climate change effects and act to ensure housing rights for the victims by preparing and implementing emergency shelters or social housing projects during crisis and to maintain, develop and evolve the affected houses in a durable methodology to ensure future voluntary return. Promoting capacity building for housing rights and adequate housing projects for IDPs and hosting communities is fundamental to ensuring social peaces and development. Sudan needs to:

* Develop research capacities and statistics in the impact of construction industry and dwellers activities on the environment and climate change
* Review building materials, codes, technologies and industry
* Develop polices and frameworks to regulate the actions and interactions and decisions of government towards housing rights and adequate housing

Adequate housing organization (AHO) is seeking to promote policy makers and stakeholders towards **National Sustainable Housing policy** that ensure housing rights and adequate housing for all with due consideration to environment and climate change issues.

**References:**

(1): From Subsidy to Sustainability: Diagnostic Review of Sudan’s Electricity Sector- Final report- 30 June 2019

\* CBS: Central Bureau of Statistics

\*MICS: Multiple Indicator Cluster Survey 2014

**Submission instructions**

**Deadline:8 July 2022**

**Email:** Please return this questionnaire to: [ohchr-srhousing@un.org](mailto:ohchr-srhousing@un.org);[ohchr-registry@un.org](mailto:ohchr-registry@un.org)

**Email subject line:** Input for SR housing - report on climate change

**Accepted File formats:** Word only (supporting documents may as well be submitted in PDF)

**Accepted languages:** English, French and Spanish

Please include references to reports, academic articles, policy documents, text of legislation and, judgements, statistical information with hyperlinksto their full text or source or attach them to your submission (please respect total file size limit of 20 MB to ensure that it can be received)

**Potential confidentiality:** Please indicate on top of this questionnaire and in your e-mail if you want to have this submission or any particular attachment not to be published on the website of the Special Rapporteur and treated as confidential.

**Expected presentation** of the report of the Special Rapporteur: February/March 2023

1. Under international law, the right to adequate housing is more than having four walls and a roof. It is essentially the right to live in a place in peace, security and dignity. Housing adequacy covers the following seven essential elements: legal security of tenure; availability of services, materials, facilities and infrastructure; affordability; habitability; accessibility; location; and cultural adequacy. For organizations and stakeholders that may not be as familiar with the right to adequate housing in international human rights law, please consult General Comment No. 4 of the UN Committee on Economic, Social and Cultural Rights,available [here](https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=INT%2fCESCR%2fGEC%2f4759&Lang=en). [↑](#footnote-ref-1)