

Chad

This country profile, commissioned by The Netherlands Ministry of Foreign Affairs (Department of Inclusive Green Growth), gives a snapshot of what is happening in the closely related themes Food & Nutrition Security, Water and Climate and Renewable Energy in Chad. It provides basic statistics on Chad's performance on key indicators and indexes, but also analyses relevant national policies, current donor interventions, and the main trends on the abovementioned themes. Combined with an overview of Dutch support to Chad, this profile ends by suggesting possible priority result areas for The Netherlands.

In total, 12 countries profiles have been made, plus one regional profile for the Sahel.

BURKINA FASO	EGYPT	IRAQ
JORDAN	LEBANON	NIGER
NIGERIA	SENEGAL	SOMALIA
SUDAN	TUNESIA	SAHEL REGION

COUNTRY PROFILE CHAD

METRICS

GOVERNMENT POLICIES
INTERVENTIONS & PLANS

WHAT NL ACTORS DO

TRENDS & LIMITATIONS
MAIN RESULT AREAS



CHAD, FACTS

Government

Unitary dominant-party presidential republic
President: Idriss Déby
Official languages: Arabic, French
Religion: Islam (55%), Christianity (40%)
Area: Total 1,284,000 km² (20th)

Population

- 2018 estimate 15,353,184
- Prospect 2050 33,636,000
- Density 8.6/km²
- **GDP (PPP) 2017 estimate**
- Total \$ 31.786 billion (123rd)
- **GDP (nominal) 2017 estimate**
- Total \$ 11,579 billion
- Per capita \$ 950

Metrics

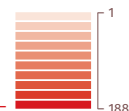
GENERAL INDICATORS

UN Human Development Index

188 countries: 1st = best opportunities for development



#186 –

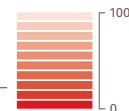


Anti-corruption and Accountability

100 = strongest policies and practices



#26 –

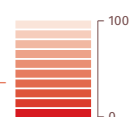


World Bank Doing Business Index

100 = most conducive environment for business



40.12 –

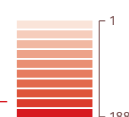


Gender Inequality Index

188 countries: 1st = smallest gender divide



#157 –



CLIMATE/RENEWABLE ENERGY INDEXES

World Bank ESMAP Electrification Index

population with access to electricity

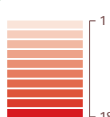


ND GAIN Index

181 countries: 1st = least climate change vulnerable, and best ready to improve resilience



#183 –



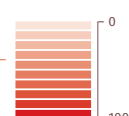
FOOD NUTRITION SECURITY INDEXES

Global Hunger Index (IFPRI)

Range 0 – 100: 0 = no hunger



34.5 –

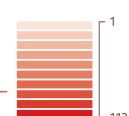


Global Food Security Index (Economist)

113 countries: 1st = best food security



#74 –

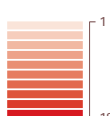


Land Management Index (UNCCD)

180 countries: 1st = most sustainable land governance



#180 –



WATER INDEXES

FAO AquaStat

Variation per capita internal renewable water resources



World Bank Drinking Water Index

population using at least basic drinking water services



JMP Sanitation Index

population with access to improved sanitation facilities



Government policies



Food security

Chad's vision by 2030 is to be an emerging country with a middle-income economy, generated by diverse and sustainable growth sources and value adding activities. In 2015, Chad organized a National Forum on Nutrition and Food and has adopted a National Nutrition Policy and Nutrition (PNNA). The government then committed to reduce the prevalence of stunting from 49% in 2010 to 20% by 2025. PNNA is accompanied by an Integrated Action Plan for Nutrition and Food (PAINA) (2017-2021) budgeted adopted in September 2017. The improvement of the nutritional status of the Chadian population is also a goal of the National Development Plan (PND) 2017-2021, adopted in July 2017.

The national Plan of Investment for Rural Development (PNISR) has a pillar on food and nutrition security, gender and resilience-building for rural households.

Water

Concerned about the issue of water resources management and the need for ownership of the principles of Integrated Water Resources Management (IWRM) in Chad, various stakeholders have taken the initiative to create a Country Water Partnership. Under the leadership of the Ministry of Water and Sanitation (MEA) of Chad.

Chad has become the first country outside the pan-European region to accede to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). By acceding to the Water Convention, Chad has confirmed its strong commitment to the sustainable management of transboundary waters through the principles and rules of international law. In doing so, the country has also demonstrated its support for the process of universalizing the Convention's approach to cooperation, which has been gaining increasing interest worldwide, and particularly in Africa.

Climate/renewable energy

In 2016, Chad submitted its first Nationally Determined Contributions (NDCs) to UNFCCC. The NDC focuses on climate change adaptation, in particular in the fields of agriculture, livestock and fisheries, but also includes a commitment to reduce greenhouse gas emissions by 18.2% which is largely conditional upon international support (for more information see climate change profile West African Sahel). The NDC includes the following priorities on agriculture, livestock and fisheries (target year 2030): Develop intensive and diverse cultivation; Use improved inputs, (organic fertilizers including composts, adapted plant varieties); Agroforestry; Land and water conservation; Common grazing zones, creating and popularizing fodder banks, crossbreeding of animal species; Development of enclosed fish farming areas.

COUNTRY PROFILE CHAD	METRICS	WHAT NL ACTORS DO
	GOVERNMENT POLICIES	TRENDS & LIMITATIONS
	INTERVENTIONS & PLANS	MAIN RESULT AREAS

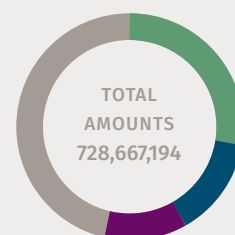
Donor interventions and plans

Top 3 donors (based on 2017 IATI data¹)

DONOR	AMOUNT (IN \$)
EU Institutions	202,839,000
United Nations World Food Programme (WFP)	100,617,000
African Development Bank	81,254,100

Top 3 Sectors attracting development funding in 2017

SECTOR	AMOUNT (IN \$)
Emergency response	159,554,000
Government and civil society, general	152,895,000
Basic health	85,806,000



The development objective of the **World Bank's Value Chain Support Project** for Chad is to improve targeted aspects of the business environment and (ii) the performance of agro-pastoral value chains in the Republic of Chad².

Hydropower development in Bahr Linia (AFD): Developing an area of production of fruit and vegetables, breeding and fish farming for the supply of the markets of N'Djamena, through: re-watering of a dead arm of the Chari river on a distance of 38 km; construction of rural tracks; development of water storage areas and fish ponds; crossing and regulation works allowing to maintain sufficient water retention for a production season of eight month per year³.

UNESCO officially launched the **BIOSphere and Heritage of Lake Chad** (BIOPALT) project on 26 February 2018. The BIOPALT project aims to increase knowledge of Lake Chad, restore wetlands, rehabilitate wildlife migration corridors and promote sustainable income-generating activities. The BIOPALT project aims to strengthen the capacity of Member States of the Lake Chad Basin Commission (LCBC) to safeguard and sustainably manage the hydrological, biological and cultural resources of the Lake Chad Basin, thereby contributing to reducing poverty and promoting peace. The project involves a wide range of activities ranging from the establishment of an early warning system for droughts and floods, to the restoration of degraded ecosystems⁴.

1) This data originates from self-reported data in IATI by major donors. It should be noted that not all aid flows and financial sources are captured.

2) <http://projects.worldbank.org/P133021?lang=en> 3) <https://www.afd.fr/sites/afd/files/2017-08/Tchad-plaquette.pdf>

4) <https://whc.unesco.org/en/news/1792>

COUNTRY PROFILE CHAD	METRICS	WHAT NL ACTORS DO
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What NL actors already do

Major commitments from the Netherlands (based on IATI) in 2017

BUDGET SPENT BY NETHERLANDS MINISTRY OF FOREIGN AFFAIRS	AMOUNT (IN \$)
Emergency response	4,498,030
BUDGET SPENT BY NETHERLANDS ENTERPRISE AGENCY (IN 2017)	AMOUNT (IN \$)
Agriculture	4469

Top largest programmes supported by the Netherlands (active as of 2017)

THEME	ORGANISATION	PROGRAMME TITLE	COMMITTED (IN \$)
Emergency food aid	Netherlands Ministry of Foreign Affairs / World Food Programme	Lenigen Hum Noden in Tsjaad DMV HRP 2017	4,498,030
Livestock	Netherlands Enterprise Agency	Livestock sector study Chad	4469

The **public drinking water coverage** in N'Djamena, the capital of Chad, is less than 30% of its population. Without intervention, this situation would deteriorate due to a lack of investments, the low operational performance of the water system and the rapidly increasing number of inhabitants of the city. The D2B-studies, conducted by Lyon-based engineering consultancy Cabinet Merlin, will provide all information necessary to improve the access to drinking water in the agglomeration of N'Djamena, with the national objective of 80% drinking water coverage in 2030. The project is also aimed at improving the overall performance of the supply system and at capacity building of the Société Tchadienne des Eaux (STE), the national operator of the drinking water system. RVO.nl is working together with partners Agence Française de Développement (AFD) and the European Union for the realization of the implementation phase of the project.⁵

The ORIO project Satellite Based Water Monitoring and Flow Forecasting consists of implementation of the satellite based Energy and Water Balance Monitoring System (EWBMS). The project supports the Niger Basin Authority (NBA) with the development, operation and maintenance of a Meteosat based water monitoring, flow forecasting and information diffusion system for the nine countries of the Niger River basin (Benin, Burkina Faso, Cameroon, Ivory Coast, Guinea, Mali, Niger, Nigeria and Chad). This will provide climatic data fields of temperature, radiation, evapotranspiration and precipitation on a daily basis. Implementation of the Large Scale Hydrological Model (LSHM) which uses the data from the EWBMS to generate river flow rates and forecasts. Implementation of the Drought Monitoring System (DMS) which will provide meteorological hydrological agricultural and climatological drought information for the entire basin. A satellite monitoring unit at NBA will be set up and trained, responsible for operating these systems and diffusing the data and related information products among users in the member countries.

5] <https://aiddata.rvo.nl/projects/NL-KVK-27378529-D2B16TS01/?tab=summary>

Trends and limitations

The current population of Chad will grow from 15 million to almost 34 million in 2050. Chad faces numerous obstacles to its development. In the Sahel region, for example, climate change is causing food insecurity, social tensions and rising poverty. Lake Chad is vitally important in the context of food security. Chad's extreme climatic conditions adversely affect not only the rural economy, but especially the lives of the people.

In a context of multidimensional poverty that affects 87% of the population, Chad faces significant climatic challenges, social, economic and security issues exacerbated by a strong population growth. About six in ten Chadians have less than 18 years and 20% are under 5 years old. These are the most vulnerable to undernutrition. Undernutrition reaches a large proportion of the Chadian population it is estimated that more than half of the population of working has suffered from stunting³ in childhood. This situation has severe economic and social consequences and is blocking the development opportunities of the country

Despite a satisfactory economic performance recorded during the last decade, poverty affects two-thirds of the population. Moreover, limited health coverage and insufficient quality of health care services contribute to very high levels of infant and maternal mortality. As a matter of fact, infant and under five mortality rates have not declined substantially in the last 25 years. The situation is further worsened by lack of adequate sanitation and access to safe water. With regard to education, illiteracy reaches alarming levels, affecting three-quarters of the population.

The diet is mainly based on cereals (sorghum and millet) and starchy roots (cassava, yam), complemented by pulses. Consumption of animal products and of fruit and vegetables, foods rich in micronutrients, is low. At national level, the food supply barely meets the average energy requirements of the population, and due to disparities in access to food more than one third of the population is undernourished. As a result, many households face recurrent, and sometimes very severe, food insecurity.

Over the last ten years, Chad's Saharan and Sahelian zones have spread 150 km south. This has resulted in reduced farming and pasture areas, which, in turn, has led livestock rearers and

farmers to move to more suitable areas to work, leading, in general, to a reinforcement of existing inequality and discrimination amongst certain populations. Likewise, Lake Chad has reduced in size from 25,000 km² in 1960 to 2,500 km² today. This reduction has considerably impacted upon crop and fish production, and forced inhabitants to move to wetter areas.

The state of the National Electricity Company's (SNE) production facilities, exclusively thermal, explains the high cost of electricity production, which represents an obstacle to the competitiveness in the Chadian economy, in particular in terms of industrial and commercial activity. The absence of an interconnected national grid makes economical pooling of the energy generated impossible, instead favouring the proliferation of isolated and onerous production facilities to supply the different cities across the country, which makes electricity expensive.

The impacts of climate change are significant on the large hydrographic systems of the basins of Lakes Chad and Niger: natural, agro-silvo-pastoral, fishery and human systems. They include changes to the agricultural seasons, disturbances in the biological cycles of crops and a reduction in cereal crop production.

Since the decline of world oil prices and declining revenues from oil, Chad is seeking to diversify its economy (agriculture). Around 87 percent of its mainly rural population lives below the poverty line. Poverty has been exacerbated by numerous conflicts and climate-related disasters over the past 50 years.

Climate change projections foresee that temperatures and droughts will continue to increase while the amount of rain that falls in 'heavy' rainfall events is projected to increase in southern Chad but decrease in northern Chad. Agricultural productivity which is already low by global standards is anticipated to fall even further due to the impacts of climate change (for more information see climate change profile West African Sahel).

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Main result areas

Chad has not seen a lot of Netherlands development activities in the past. The Netherlands could use the context knowledge and experience of partners such as Swiss Cooperation and AFD, but also make a meaningful contribution from own expertise and the use of additional resources.

Based on the above metrics and trends, the following “directions” can be considered to be most promising for intervention. These are based on the country needs, complementarity to interventions by other donors, and match with The Netherlands’ development policy, knowledge and experience.

More details on directions (also on regional approaches) can be found in the Sahel regional profile.

FOOD

Food security

- **Promoting pastoralism value chains.**
Work to prevent and manage (farmer-pastoralist) conflicts. Improve meat and dairy value chains (employment opportunities for young people), establish and reinforce inclusive, locally-owned networks of local, national and regional pastoralist leaders, improve grasslands or address degradation of grasslands, enhance herd management, improve access to water for animals etc.
- **Encouraging Public Private Partnerships for value chain development and entrepreneurship:**
Fund programs, like e.g. the 2Scale program in Nigeria, to help Chad to stimulate inclusive agribusiness and public private partnerships
- Value chain development and food security (requests from AFD and CS).
Modernisation of several agricultural product chains in different regions (peanut, shea, gum arabic, sesame, chilli, millet), with special attention for the position of small producers and (women) cooperatives, and for strengthening the role of government organisation ANADER.
- **Restore lowlands and improve their productivity** through construction of water-spreading weirs in dry river valleys, by offering social

support (setting up management groups for structures and developed areas, signing agreements with communities) and technical support (transfer of know-how to communities and local enterprises for the construction and maintenance of the weirs, production of vegetable seeds, production of seedlings, simplified accounting, etc.). Also request for collaboration by AFD and CS.

- **Improving access to quality seed** in Chad: Most farmers in the Chad do not have access to quality seed for their food crops, only for maize and irrigated rice quality seed is available and used, for most other crops only a few percent of farmers use quality seed or have access to the quality seed of their choice. Sahel countries need to have a dynamic seed sector consisting of small and medium sized enterprises and multinationals, underpinned by strong private and public support. Developing the seed sector is a complex process that requires an integrated approach. Integrated seed sector development is an approach to enhance reliable access of male and female smallholder farmers to sufficient quantities of quality seed of superior varieties at the right time and at an affordable price; and to

increase male and female farmers’ choice in terms of crop varieties, and seed quality, price and availability. The ISSD approach focuses on

1. how to promote seed entrepreneurship;
2. how to increase access to varieties in the public domain;
3. how to match global commitments with national realities; and
4. how to support seed sector development. The Swiss would like to cooperate with the Netherlands on specific projects in the field of seeds / plant breeding (projet filière semencière). Increasing access to quality seeds for improving the agricultural production of smallholders, through support to regional production of quality seeds, adapted to local conditions, and accessible to farmers, support to ITRAD (Chadian institute for agronomical research) to develop the production of basic seed. Integrated seed sector development is only one of the building blocks of a sustainable integrated agricultural development approach, in addition one should address input availability (organic and inorganic fertilizer, disease and pest management and value chain development.

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Main result areas

Water

- **Enhancing (better) land governance.** Population growth, heritage systems, land grab, all influence people's access to land and land use for agriculture and other economic activities. Land is essential for the livelihoods and economic prospects of small-holders but are increasingly the subject of competing claims or 'land grabbing' by different user groups and of exclusion of the most vulnerable groups. Secure access to land is important for social justice and dignity. Land governance is the process by which decisions are made regarding the access to and use of land, the manner in which those decisions are implemented and the way that conflicting interests are reconciled. Weak land governance can become a root cause of economic stagnation, ecosystem degradation, deprivation and injustice. Chad has been reforming tenure legislation and there is an increasing role for local institutions (e.g. local land boards, local councils) as mediators in managing between competing claims and deciding on access to land rights. There is a need for land registration (cadastral services), quick and transparent procedures towards land titling ensuring that land use claims by women and youth are guaranteed for longer periods to ensure economic investments.
- **Developing food transformation knowledge and support programs.** These transformations open up new opportunities for value addition and employment creation, and increasingly in the off-farm segments of the value chain. Given the size of the food economy, its functioning, competitiveness and development have major impacts on the current employment structure and future job opportunities and needs. These ongoing transformations of the food economy have important impacts on the scope and effectiveness of food and nutritional security policies and early warning mechanisms, and food policy more broadly. Policies need to adjust to these changes in order to fully leverage the new opportunities in terms of value generation, employment and economic diversification, improved affordability and stability of food supply, and nutritional outcomes.
- **Upscaling of G4AW data for agriculture, pastoralism and climate change** to provide farmers and pastoralists with relevant information on climate, weather and hazards, customized and timely agricultural advice and more efficient use of seeds, water and fertilizers.
- Swiss cooperation request for collaboration in the **hydrogeology / remote sensing** (ResEau) project. Precisely because they expect Dutch expertise in this area to added value for their projects. Objective is to increase access to water and resilience of populations to climate change through improvement of the knowledge on water resources; development of a GIS database for producing hydrogeological maps for the whole country, building of hydrogeological expertise at government and university.
- **Water management, large and small scale irrigation.** Projects, AFD wants to define in cooperation with The Netherlands. Different modalities of cooperation can be explored, from similar interventions in parallel on different sites or in different regions, to coordinated intervention where each partner is responsible for specific tasks in all regions, to fully integrated interventions where one of the partners takes responsibility for the full implementation on behalf of all partners.

Climate/renewable energy

- **Support access to renewable energy** for electricity provision of the urban and rural poor and for agricultural value chains
- **Extending the Biogas initiative:** Following the success in Burkina, upscale the program to Chad (3rd phase), giving people access to electricity for economic development and security and increasing soil fertility for food security through biogas slurry (e.g. for women gardening).
- **Promoting energy security with solar energy.** Large parts of the populations in Chad do not have access energy insecure. Promoting solar energy through local small business and micro-financing would reduce this inequity. Promote integrated use of solar energy for electricity and for agricultural purposes (processing, water pumps for irrigation, grinding mills etc.).

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Linking to IGG result areas

The suggested directions are placed against the results areas in IGG. These directions are not in order of priority – as many are interrelated.

Other reflections important for the choice of NL directions in Chad

- NL has not enough context knowledge, and language is an obstacle: build strategic partnerships for complementarity. Although many opportunities for agricultural development, investments from Netherlands companies will be limited.
- In fact there are two Chads, the French speaking Sahel part, also around lake chad and the Arab part more linked to Sudan. There is an interest of Dutch companies to invest in dairy, poultry and livestock. The NL Embassy is in Sudan and it is difficult to establish direct or many relationships, also because of the language barrier.
- Need for curricula development together with e.g. Borderless Network and Delft University, and student exchange between Chad and the Netherlands.

POLICY (SUB) RESULT AREAS IGG	SUGGESTED DIRECTION
Reduced malnutrition	Developing food transformation knowledge and support programs
Promote agricultural growth	<ul style="list-style-type: none"> • Promoting pastoralism value chains • Restore lowlands and improve their productivity • Improving access to quality seed • Upscaling of G4AW data for agriculture, pastoralism and climate change
Create ecologically sustainable food systems	<ul style="list-style-type: none"> • Modernisation of several agricultural product chains in different regions • Developing food transformation knowledge and support programs
Better governance for food and nutrition security	<ul style="list-style-type: none"> • Encouraging Public Private Partnerships for value chain development and entrepreneurship • Enhancing (better) land governance
WATER	SUGGESTED DIRECTION
Water resources management	<ul style="list-style-type: none"> • Collaboration in the hydrogeology /remote sensing (ResEau) project • Water management, large and small scale irrigation • Supporting polder development
Transboundary river basins management	Continue support to Lake Chad Basin Commission
Increased water productivity	Promote climate-smart (agriculture) use of scarce water resources
Access to safe drinking water and sanitation	Provide climate-resilient access to drinking water for larger and smaller cities
CLIMATE AND RENEWABLE ENERGY	SUGGESTED DIRECTION
Access to renewable energy	<ul style="list-style-type: none"> • Extending the Biogas initiative • Promoting energy security with solar energy
Sustainable forestry management and related practices	Restore lowlands and improve their productivity

Colofon

Country profile: This country profile is part of a series of 12 countries in the Sahel, Horn of Africa, and MENA regions, covering per country the themes of Food & Nutrition Security, Water, Climate and Renewable Energy. Commissioned by the Netherlands Ministry of Foreign Affairs (Department of Inclusive Green Growth, IGG), and implemented by Wageningen Centre for Development Innovation (WCDI), as part of the Support Facility of Food & Nutrition Security.

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Photo's: <https://www.flickr.com/photos/valerian1985/25727687837/>
https://www.flickr.com/photos/matt_tomalty/4331861243/

Design: <http://rco.design>

Methodology

These country profiles are considered a first reconnaissance for IGG in countries that currently do not have bilateral programmes on food, water, climate or energy. As a consequence, the design of these profiles is light and pragmatic. The consultants based these country profiles primarily on focus group discussions and interviews with staff of the Ministry of Foreign Affairs, Ministry of Agriculture, and RVO.

This data was augmented by interviews with country experts, databases from UN and World Bank Group, and IATI (a voluntary, multi-stakeholder initiative aiming to improve the transparency of aid and development resources. The Netherlands is committed to sharing data on its programmes and target areas in IATI).

Based on this data, the consultants offer for each country several result areas for consideration. These should be seen as

general directions towards possible actions which (1) are needed and requested by the country, (2) are complementary to what others are doing already, and (3) present an opportunity to cooperate on areas of Dutch expertise and interest. These possible result areas are not recommendations for specific programmes to be developed.

Thank you to

Laurent Minère (RVO), Ivo Walsmit (RVO), Karin Boven, Jan Hijkoop, Monique Calon, Jeroen Rijniers, Irene Knobens and Frits van der Wal for suggestions and comments.

Documents consulted

Besides internal Ministry of Foreign Affairs documentation and public documents from other agencies (such as WBG, EC, FAO, WFP, USAID, DFID), specific references are footnoted in the text.

Sources for metrics

General country statistics: sourced from CIA World Factbook, UNFPA, UNDESA, IMF, and Wikipedia.

Human Development: UN Human Development Index (2016)
www.hdr.undp.org/en/countries

Anti-corruption and Accountability: Africa Integrity Indicators http://aai.globalintegrity.org/scores-map?stringId=access_information_openness&year=2017

Doing Business: WBG Doing Business Index
<http://www.doingbusiness.org/>

Gender Inequality: Gender Inequality Index
<http://hdr.undp.org/en/content/gender-inequality-index-gii>

Population 2018 estimate <http://worldpopulationreview.com/countries/>
Population 2050 projection UNDESA 2017
https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf

Hunger: Global Hunger Index (IFPRI) <https://www.ifpri.org/publication/2017-global-hunger-index-data>

Food security: Global Food Security Index (Economist) <http://foodsecurityindex.eiu.com>

Land management: Land Management Index (UNCCD) https://global-land-outlook.squarespace.com/s/Preliminary-draft-scoping-paper-fro-LMI_May-2017.pdf

Renewable water resources: FAO AquaStat <http://www.fao.org/nr/water/aquastat/main/index.stm>. We calculated the Variation in per capita internal renewable water resources, by comparing the total internal renewable water resources per capita in 2014 (m³/inhabitant/year) with same values in 2007.

Drinking water: World Bank Drinking Water Index <https://data.worldbank.org/indicator/SH.H2O.SMDW.ZS>

Electrification: World Bank ESMAP Electrification Index <http://rise.esmap.org/>

Climate change vulnerability and readiness: ND GAIN Index <https://gain.nd.edu/our-work/country-index/>

IATI: <http://d-portal.org/> and <https://www.iatiregistry.org/>