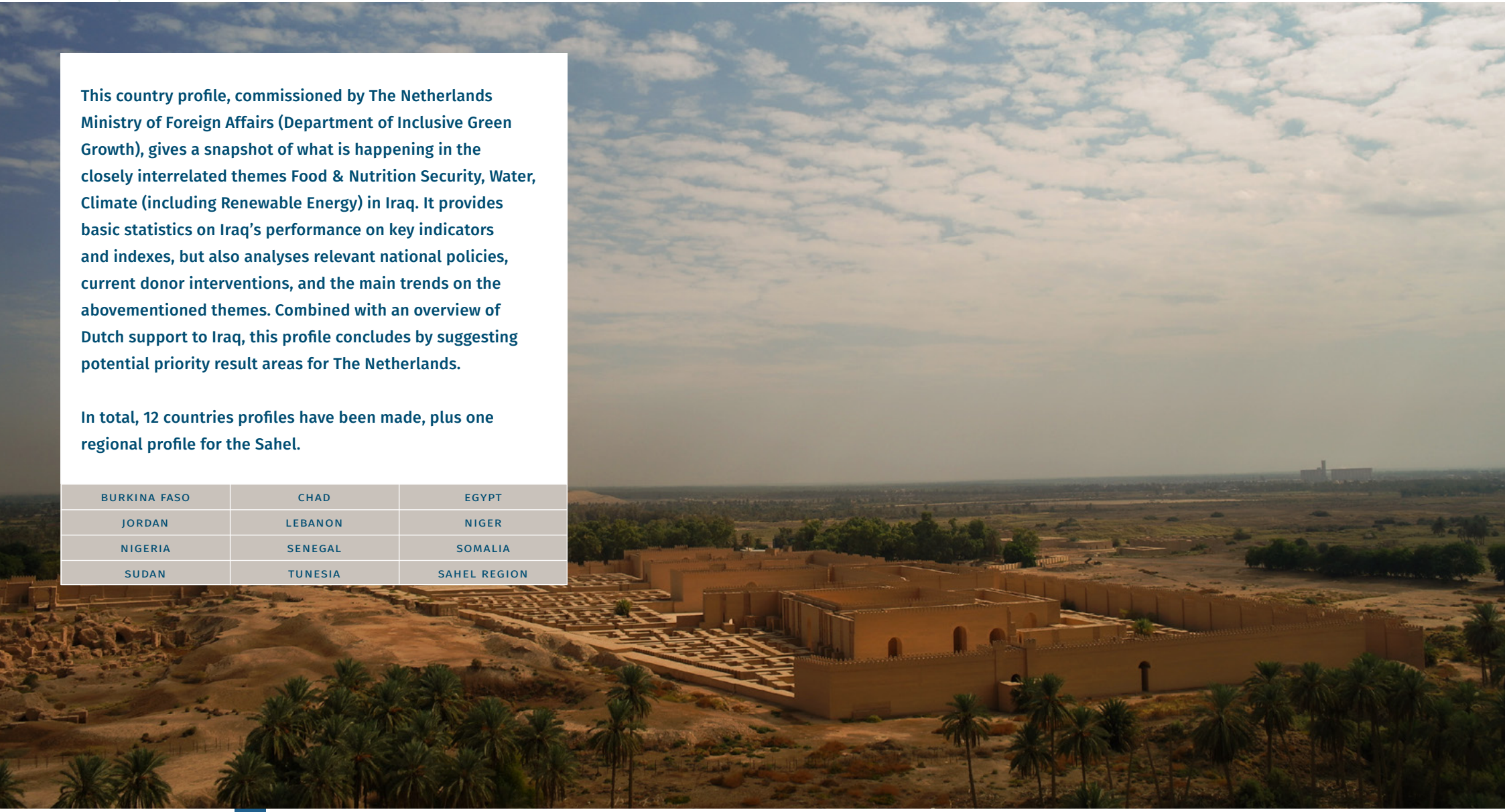
Iraq



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 interrelated themes Food & Nutrition Security, Water, Climate (including Renewable Energy) in Iraq. It provides basic statistics on Iraq'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 Iraq, this profile concludes by suggesting potential priority result areas for The Netherlands.

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

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

Metrics

IRAQ, FACTS

Government
- Federal parliamentary republic
- President: Fuad Masum
- Includes the autonomous Kurdistan Region of Iraq (regional parliamentary democracy)

Official languages: Arabic, Kurdish
Religion: Islam
Area: Total 437,072 km² (58th)

Population
- 2018 estimate 39,339,753
- Prospect 2050 81,490,000
- Density 82.7/km² (125th)

GDP (PPP) 2017 estimate
- Total $ 753.450 billion (34st)

GDP (nominal) 2017 estimate
- Total $ 202,922 billion
- Per capita $ 5,091

GENERAL INDICATORS

UN Human Development Index
188 countries: 1st = best opportunities for development

#121 – (1 – 188)

Anti-corruption and Accountability
100 = strongest policies and practices

N/A (100 – 0)

Word Bank Doing Business Index
100 = most conducive environment for business

25.33 – (100 – 0)

Gender Inequality Index
188 countries: 1st = smallest gender divide

#123 – (1 – 188)

FOOD NUTRITION SECURITY INDEXES

Global Hunger Index (IFPRI)
Range 0 – 100: 0 = no hunger

6.7 – (0 – 100)

Land Management Index (UNCCD)
180 countries: 1st = most sustainable land governance

#129 – (1 – 181)

CLIMATE/RENEWABLE ENERGY INDEXES

World Bank ESMAP Electrification Index
population with access to electricity

99%

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

#130 – (1 – 181)

WATER INDEXES

FAO AquaStat
Variation per capita internal renewable water resources

24.2%

World Bank Drinking Water Index
population using at least basic drinking water services

86%

JMP Sanitation Index
population with access to improved sanitation facilities

32%

N/A: Not Available, or data is incomplete

Donor interventions and plans

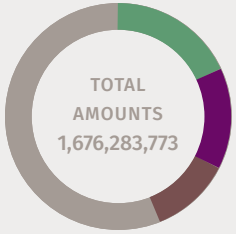
Government policies

All available policy frameworks in Iraq are out of date given the instability of the last years. Implementation of these plans has been delayed in some respects. For Food and Nutrition Security there is the National Development Plan 2018-2022.

For water there is a Strategy for Water and Land resources from 2014, which to date is not implemented. There is no focussed climate change/ renewable energy policy, although Iraq did submit an Intended Nationally Determined Contribution (only in Arabic) to the UNFCCC in November 2015

Top 3 donors (based on 2017 IATI data[1])

DONOR	AMOUNT (IN $)
United States Agency for International Development (USAID)	297,642,000
United Nations Development Programme	204,690,000
United Nations Children's Fund	185,828,000



Top 3 Sectors attracting development funding in 2017

SECTOR	AMOUNT (IN $)
Emergency response	699,953,000
Reconstruction relief and rehabilitation	213,190,000
Unallocated / unspecified	186,637,000

Most donors, including the Netherlands, are active in the fields of emergency response and reconstruction, relief and rehabilitation (also called 'stabilization'). Much of this experience on-the-ground is in Kurdistan Autonomous Region in the north of Iraq, where NGOs have access to affected populations from cities like Erbil. The Netherlands is also active in the field of peace and security; it has provided support for reconciliation and human rights activities as well as psychosocial support for the victims of the IS occupation. Next to that it supports activities in the area of (financial) accountability. Currently, possible cooperation in the areas of private sector development and food security (the latter through Wageningen University & Research) is being explored.

Substantial investments in agricultural development are underway through the World Bank (Agricultural Transformation Program in Iraq 2018-2027) and FAO. Water (scarcity) issues are also going to be part of the new focus country strategy; the IHE will be visiting Iraq to help the ministry of water review its strategy for Water and Land Resources from 2014.

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.

Trends and limitations

Major commitments from the Netherlands

BUDGET SPENT BY NETHERLANDS MINISTRY OF FOREIGN AFFAIRS (IN 2017)	AMOUNT (IN $)
Conflict prevention and resolution, peace and security	13,117,200
Emergency response	12,792,400
Government and civil society, general	2,208,070
BUDGET SPENT BY NETHERLANDS ENTERPRISE AGENCY (IN 2017)	**AMOUNT (IN $)**
Industry	42,736

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

THEME	ORGANISATION	PROGRAMME TITLE	COMMITTED (IN $)
Peacebuilding, conflict prevention and resolution	Netherlands - Ministry of Foreign Affairs / UNDP	IRAK FFIS ODA UNDP	8,285,850
Participation in international peacekeeping operations	Netherlands - Ministry of Foreign Affairs / UNDP	FFIS IRAK	5,537,300
Relief assistance	Netherlands - Ministry of Foreign Affairs / Terre des Hommes	DRA Terre des Hommes Iraq 2018-2021	4,609,500

Food security

Iraq is very vulnerable in terms of food security. Agriculture is limited and an estimated 80% of food is imported from the UAE, Kuwait and Saudi Arabia. Even drinking water is imported from these countries (!). Prices of food products imported are very low, making it difficult for farmers in Iraq to economically justify (re)starting agricultural activities. Of the total area of Iraq (43.7 million ha), only 9.3 million ha is suitable for agriculture in Iraq. Yet the total area under cultivation is in between 2-4 million ha[2]. A stabilization and revitalization of agriculture and employment opportunities through productive investments is considered of high importance.

Yet, Iraq is a country that has known a productive agricultural sector in the past, and certain regions are suitable in terms of soils and water resources. Major products are cereals, including wheat and barley. Iraq is also a producer of dates, sheep and goat meat, chicken meat, and milk. Most agricultural activity is concentrated in the fertile lowlands in the Mesopotamian plains irrigated from the Tigris and the Euphrates. Also the Kurdistan Autonomous Region has traditionally been considered the 'bread basket of Iraq' with strong cereal and fruit subsectors. Restoring and revitalizing these regions is challenging given lack of security, water, and institutional capacity.

FAO has conducted an agricultural damage and loss needs assessment across six of Iraq's 18 governorates – Anbar, Babil, Diyala, Ninewa, Salah al-Din and Wassit[3]. Prior to the crisis, the majority (87 percent) of the households in the assessed communities were engaged in agriculture and related activities. In liberated and ongoing conflict areas, farmers had fled in fear of their safety, leaving most of their possessions behind. People's assets, job opportunities and local businesses have all been adversely impacted. While wage labour in agriculture and the selling of agricultural goods were the most common forms of employment, more than half the workforce is now unemployed. Food insecurity has become more widespread. According to the focus group discussions across all assessed areas, people are not only relying on less expensive and less nutritious food but are also reducing their number of daily meals.

A mission from the Wageningen University & Research will be providing assistance to the Netherlands Embassy in Baghdad and the Iraqi government to develop projects for revitalization and improvement of agriculture, food security and rural employment.

2] FAO. Figures are indicative only (as estimates from different FAO documents differ).
3] http://www.fao.org/documents/card/en/c/823c5ba2-17cd-4b78-8c3f-f80e9f044c66

Trends and limitations

Water

Both the Tigris and the Euphrates are transboundary rivers, originating in Turkey. It is difficult to determine the average annual discharge of the Euphrates and Tigris rivers together due to the large yearly fluctuation and developments upstream of the rivers in Turkey (and also in Syria before the civil war). However, these two rivers account for 100% of the countries surface water and there are serious concerns that river flow will be severally constrained over time due to these transboundary and upstream developments.

Iraq's annual active groundwater recharge rate is not fully understood. There are no consistent numbers as to the actual use and recharge of groundwater.

Iraq does have some waste water re-use practices, but this does not amount to much more than a few percentage points (again, numbers are missing). 86% of the population had access to safe drinking water in 2015. Only 32% had access to sanitation in that year. These numbers will have become worse during the war. A concerted effort to rebuild and improve municipal infrastructure is therefore evident. With a dearth of recent data on water resources and water use one of the main tasks on the agenda is to gain more insight into the current status of water resources in Iraq. To this end the embassy has asked IHE to review the water policies and developments in Iraq.

Climate/Renewable Energy

Renewable energy in Iraq does not have a high priority. As a country rich in oil reserves, from which most of its foreign currency reserves and income stem, the incentive to switch to renewable energy is low. However, on 2013 Iraq's total GHG emissions were 282.53 million metric tons of carbon dioxide equivalent (MtCO2e), totalling 0.6 percent of global GHG emissions[4]. In terms of climate vulnerability, Iraq is ranked 130 out of 181 countries in the ND-Gain Index[5] (ranking 1 being the least vulnerable). Iraq is the 83rd most vulnerable country and the 16th country least ready to tackle this vulnerability. Whereas this ranking is liable to have become less as a consequence of the war, once Iraq is fully operational, the need for a reduction in GHG emissions will become evident.

Iraq submitted an Intended Nationally Determined Contribution (only in Arabic) to the UNFCCC in November 2015. Iraq has set conditional targets to reduce greenhouse gas (GHG) emissions by 90 million metric tons of CO2 equivalent/14% below business-as-usual (BAU) emissions between 2020 and 2035: 13% are conditional on receiving international support and 1% is unconditional (financed from Iraq's own resources). Priorities are energy conservation and use of renewable energy. Among the climate change adaptation priorities in Iraq's INDC are agriculture (irrigation and climate-smart agriculture), water (water management, water conservation and reuse) and sustainable land management (wetlands, protection of natural vegetation cover)[6].

It is also relevant to note that the potential for solar energy in Iraq is large, and that provided the right incentives can be found, a growth of Iraq's solar power capacity may also allow it to become a net energy exporter, providing additional revenues, economic growth and employment.

Regional issues

One of the key concerns for Iraq is the development of large scale water infrastructure upstream of its two major rivers. Relationships with Turkey and Syria are not optimal, and the consequences of unsuccessful agreements will be felt in terms of water scarcity. It was suggested by respondents that a role of The Netherlands in improving transboundary relationships would greatly assist Iraq to deal with water scarcity, improving agricultural production (through securing sufficient water) and as a consequence improving economic growth and prosperity. This would entail supporting capacity building on a strategic level to develop long term plans, and to negotiate on resources between various segments of society, both in Iraq and between countries.

4] https://www.climatelinks.org/resources/greenhouse-gas-emissions-factsheet-iraq 5] ND GAIN index summarizes a country's vulnerability to climate change and other global challenges in combination with readiness to improve resilience. http://gain.nd.edu/our-work/country-index/rankings/
6] http://climatepolicydatabase.org/index.php?title=Intended_Nationally_Determined_Contribution:_Iraq

Ranking of main result areas

Based on the above analysis, the following result areas can be considered to be most promising for intervention. This ranking is indicative only. It is based on the country needs, complementarity to interventions by other donors, and match with The Netherlands' development policy, knowledge and experience. The ranking is informed by an integrated and nexus approach. Most of the proposals are inter-related.

FOOD & NUTRITION SECURITY	SUGGESTED DIRECTION	SHORT NARRATIVE
Malnutrition		
Agricultural growth	**Agricultural value chain development**	Support for value chain development for (commercial) agriculture, as a means to boost sector competitiveness, non-farm rural employment, and revitalization of rural areas in Kurdistan Autonomous Region, parts of Central Iraq, and South Iraq.
Sustainable food systems	**Water security for climate resilient economic development**	Water security to ensure that climate resilient economic development can take place in Iraq requires a strong focus. Agriculture is a mainstay of the Iraqi economy, and large-scale support for water use efficiency, introduction of technologies such as hydroponics and aquaponics, and careful balancing of water uses is required.
Enabling environment	**Policy support and capacity development support**	For all of the above a strong institutional capacity must be developed at the national level, but maybe more importantly, at the regional and local level, and with civil society organisations.

WATER	SUGGESTED DIRECTION	SHORT NARRATIVE
Improved water resources management		
Transboundary river basins management	**Support to transboundary water management**	It was suggested by respondents that a role of The Netherlands in improving transboundary relationships would be a pathway for The Netherlands to effectively help Iraq with water scarcity, improving agricultural production (through securing sufficient water in a sustainable manner) and enhancing resilience against climate change, thereby improving economic growth and prosperity[7].
Increased water productivity	**Water security for climate resilient economic development**	See under Food & Nutrition Security

CLIMATE*/RENEWABLE ENERGY	SUGGESTED DIRECTION	SHORT NARRATIVE
Access to renewable energy	**Support to climate change mitigation**	To address climate change mitigation, Iraq must reduce its fossil fuel consumption, and make them more climate friendly through the use of adequate emission measures, and incentives for use of clearer fuels and technologies.
Sustainable forestry management and related practices		

7] Irene Knoben * The result areas under climate are partly integrated in the resilience components under the Water and Food and Nutrition Security results areas.

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: Sergey Mayorov, Rasoul Ali, www.123rf.com **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
The authors thank all staff of the Ministry of Foreign Affairs and RVO for sharing information and ideas. Special thanks to Oleg Büler, Marielle Geraedts, Irene Knoben 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://aii.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 per capita in 2014 (m^3/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/