

Sahel region

This regional 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 the Sahel region. It provides basic statistics on the region's performance on key indicators and indexes, but also analyses relevant policies, current donor interventions, and the main trends on the abovementioned themes. Combined with an overview of Dutch support to the Sahel, this profile ends by suggesting possible priority directions for The Netherlands.

In total, 12 countries profiles have been made, in addition to this regional profile for the Sahel. It is advised to read this regional profile together with the 5 Sahel country profiles.

BURKINA FASO

CHAD

EGYPT

IRAQ

JORDAN

LEBANON

NIGER

NIGERIA

SENEGAL

SOMALIA

SUDAN

TUNESIA



SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

Metrics

Socio-Economic Situation in the Sahel

From West Sahel Climate profile¹

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



Corruption Perception Index
180 countries
1st = least corrupt



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



Africa Gender Equality Index
52 countries:
1st = highest equality

	BURKINA FASO	CHAD	MALI	MAURITANIA	NIGER	NIGERIA ²
GDP (PPP)³	1771	1990	2125.7	3852.5	986	5861.1
Population⁴ (2018 est)	19,751,651	15,353,184	19,107,706	4,540,068	22,311,375	195,875,237
Pop. growth rate⁵	2.9	3.1	3.0	2.8	3.8	2.6
Pop. 2050⁶	43,207,000	33,636,000	44,020,000	8,965,000	68,454,000	410,638,000
Pop. Density⁷	68	11	15	4	16	204
Human Development Index⁸ (HDI, 2016) (188 countries)	185	186	175	157	187	152
Corruption Perception Index⁹ (CPI, 2017) (180 countries)	72	159	116	143	101	148
Gender Inequality Index¹⁰ (GII, 2016) (188 countries)	146	157	156	147	157	N/A
Africa Gender Equality Index¹¹ (2015, 52 countries)	22	44	50	46	45	23
Fragile State Index¹² (2017, 178 countries)	44	8	31	28	20	13
Adult Literacy %¹³	34.6	22.3	33.07	45.5	15.4	51.08

- 1] Ministry of Foreign Affairs (2018, draft). Climate Change Profile: Sahel. The Hague: Ministry of Foreign Affairs/IGG.
- 2] National data.
- 3] <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD>
- 4] World Population Review 2018 estimates <http://worldpopulationreview.com/countries/>
- 5] <https://data.worldbank.org/indicator/SP.POP.GROW>
- 6] UNDESA (2017): World Population Prospects: The 2017 Revision, Key Findings and Advance
- 7] Tables. Working Paper No. ESA/P/WP/248. https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf
- 8] <https://data.worldbank.org/indicator/EN.POP.DNST>
- 9] <http://hdr.undp.org/en/content/human-development-index-hdi>
- 10] https://www.transparency.org/news/feature/corruption_perceptions_index_2017
- 11] <http://hdr.undp.org/en/composite/GII> Developed by the African Development Bank, it reflects the status of women along three dimensions of equality: economic opportunities, social development, and law and institutions. The index ranks 52 African countries according to their overall score and to these distinct dimensions of equality. Available at https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Gender_Equality_Index_2015-EN.pdf
- 12] <http://fundforpeace.org/fsi/>
- 13] <https://www.indexmundi.com/facts/indicators/SE.ADT.LITR.ZS/rankings>

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

Regional initiatives, communities and policies



Major river basins

- North West Coast
- Senegal River Basin
- North Interior
- Lake Chad Basin
- No data
- West Coast
- Niger River Basin
- Volta Basin
- Central West Coast
- Congo River Basin

The Great Green Wall is an African initiative to combat the effects of climate change and desertification. Led by the African Union, the initiative aims to transform the lives of millions of people by creating green and productive landscapes across North Africa, the Sahel and the Horn.

As a programming tool for rural development, the overall goal of this sub-regional partnership is to strengthen the resilience of the region's people and natural systems with sound ecosystem management, the protection of rural heritage, and the improvement of the living conditions of the local population¹⁴.

The Economic Community of West African States (ECOWAS), is a regional group with a mandate of promoting economic integration in all fields of activity of the constituting countries. Member countries are Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo. As

a trading union, it is also meant to create a single, large trading bloc through economic cooperation. Integrated economic activities as envisaged in the area revolve around but are not limited to industry, transport, telecommunications, energy, agriculture, natural resources, commerce, monetary and financial issues, social as well as cultural matters. In 1979 ECOWAS introduced the Trade Liberation Scheme; in 2015 a Common External Tariff. ECOWAS promotes free movement of products, services and people.

The Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) includes thirteen Member States: Benin, Côte d'Ivoire, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal, Togo, Burkina Faso, Mali, Niger, Chad and Cape Verde. To effectively respond to food crises in the Sahel, ECOWAS, with technical support from CILSS have encouraged the implementation of early warning systems in all of the countries in the region.

Several multi-country River basin organizations are in place:

- Senegal River Basin Development Organization (OMVS): Senegal, Mauritania, Mali and Guinea
- Gambia River Basin Development Organization (OMVG): Senegal, Gambia, Guinea and Guinea Bissau
- Volta Basin Authority (VBA): Ghana, Burkina Faso, Mali, Benin, Togo and Ivory Coast
- Niger Basin River Authority (NBA): Guinea, Mali, Niger, Benin and Nigeria
- Lake Chad Basin Commission LCBC: Cameroon, Chad, Niger, Nigeria, Central African Republic, Sudan, Libya and Algeria

Emphasis is mostly on large infrastructure projects. The institutional base is generally weak, countries act in isolation while they should connect. As an example, in its current iteration, the Niger Basin Authority (NBA) has been inspired by the experience of OMVS (supported by the Netherlands) which operates jointly owned infrastructure on the Senegal River and its tributaries on the basis of a cost-and-benefit sharing arrangement. With technical and financial support from donor agencies, the NBA countries have adopted a gradual approach to empowering the regional organization in this role, and in principle agreed on the possibility to delegate management of shared infrastructure to the regional

level in the future. In practice, however, member states remain reluctant to empower or even equip the organization beyond what strictly falls within the immediate sphere of national level interests. Trust of member states in the capacity of the institution is low (ECDPM, 2017A).

The performance on shared water management of the Lake Chad Basin Commission (also supported by the Netherlands) and its member states is mixed. Mechanisms and tools to monitor and control the use of water resources are not fully operational, partly due to insufficient clarity of roles and competences but also due to a lack of genuine political interest among, and investment by, member states. The massive proposed transnational inter-basin investment to transfer water from the Congo River Basin to Lake Chad is favored over structural interventions to address environmental decline and agricultural transformation in the wider basin area, and particularly around the southern tributaries of the Lake (ECDPM, 2017B).

14] www.fao.org/partnerships/great-green-wall

Donor supported Sahel region initiatives and policies



The **Sahel Alliance** member countries France, Germany, the EU, the World Bank, the African Development Bank and UNDP, joined by Italy, Spain and the UK help the G5 Sahel (Burkina Faso, Chad, Mali, Mauritania, Niger). For the moment the Netherlands is observer but considering to join the alliance. The alliance is to take action in six priority sectors: youth employment, rural development and food security, energy and climate, governance, decentralization and access to basic services, and security. The new initiative plans to pioneer an integrated approach to address development and security challenges in the region.

The **Sahel and West Africa Club** (SWAC) is an independent, international platform. Its mission is to promote regional policies that will improve the economic and social well-being of people in the Sahel and West Africa. Its objectives are to: Improve the regional governance of food and nutrition security; Improve the understanding of ongoing transformations in the region and their policy implications through regional, spatial and forward-looking analyses. Food issues remain the focus of the Secretariat's program of work in 2017-18. It integrates crisis prevention and management, resilience and the region's capacity to feed a rapidly growing and urban population. Because regional action is at the heart of these

issues, borders and cross-border co-operation remain an important focus, as well as three major challenges for the coming decades: gender equality, climate change and stability. GiZ supports the Sahara and Sahel observatory which initiates and facilitates partnerships around common challenges related to shared water resources management, implementation of international agreements on desertification, biodiversity and climate change in the Sahara and Sahel region¹⁵.

The development objective of the **Sahel Irrigation Initiative Support Project** for Western Africa (Worldbank, 2017) are to improve stakeholders' capacity to develop and manage irrigation and to increase irrigated areas using a regional 'solutions' approach in participating countries across the Sahel.

The **Global Water Initiative** (GWI), in partnership with the irrigation development and management authorities has implemented studies at 3 sites in West Africa where dams and irrigation schemes were constructed between the late 1970s and the late 1990s: Sélingué in Mali, Anambé (Niandouba and Confluent dams) in Senegal, and Bagré in Burkina Faso. The aim was to analyze the conditions for financial and economic viability of such water management projects, and

the possibilities for improving the living conditions of farming families following the construction of dams. Findings show that multiple-use dams offer a better return on their massive initial investment than dams with a purely agricultural purpose.

The **Green Climate Fund** (GCF) is a new global fund created to support the efforts of developing countries to respond to the challenge of climate change. GCF helps developing countries limit or reduce their greenhouse gas emissions and adapt to climate change. Programs include the Universal Green Energy Access Program in Nigeria to increase low-emission energy access for the rural population, including women, the Acumen Resilient Agriculture Fund (ARAF) which aims to support pioneering and early-growth stage innovative agribusinesses that enhance the climate resilience of smallholder farmers in Nigeria, the Africa Hydromet Program for strengthening climate resilience in Burkina Faso and Mali, the Building the climate resilience of food insecure smallholder farmers through integrated management of climate risks project in Senegal and the Senegal Integrated Urban Flood Management Project¹⁶.

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

What NL actors already do regionally

Mali/Sahel strategy

First of all the recently finalized Netherlands Mali/Sahel Inter-Ministerial Strategy 2018-2021 describes a pilot strategy for expertise and priorities relevant to addressing root causes of instability and migration, it focuses on: Increasing support for youth employment initiatives; Prioritizing family planning and access to modern anticonception within SRHR-programs; Promoting climate smart food security; access to renewable energy and integrated water resource management; Supporting the rule of law and inclusive governance. The analysis and drivers of change from this strategy note are also inspiring and guiding this regional profile.

Food security

The 2SCALE program (currently in Mali and Nigeria) stimulates inclusive agribusiness and public private partnerships in Africa offering significant and durable opportunity to smallholders to improve their livelihoods and to SMEs to improve sales and provide jobs, while sustainably supplying food to regional, national and local markets. The program manages a portfolio of public-private partnerships (PPPs) of private and B2B partners (finance) for value chain development (sourcing & market access) and public partners for enhancing social inclusion (organized smallholders, women).

Promotion of youth entrepreneurship through facilitating access to land (public) and provision of labor and information (IT) services (private)¹⁷.

RVO's Orange Corners is currently also rolled out in Senegal and Nigeria. It is a platform for (young) entrepreneurs to learn, stimulate their creativity, grow their business and expand their professional network. The aim is to contribute to economic growth by creating an environment for local entrepreneurship to thrive¹⁸.

The ICRAF – Drylands Development Program (DryDev) is a farmer-led program to enhance water management, food security, and rural economic development in the drylands of Burkina Faso, Ethiopia, Kenya, Mali and Niger. It is a five-year initiative (August 2013 to July 2018, now extended to 2019) funded by the Netherlands, with a financial contribution from World Vision Australia (WVA). The World Agroforestry Centre (ICRAF) is the overall implementing agency¹⁹.

A number of strategic partnerships under 'Advocating and Influencing' are also active in the Sahel on the interface between agriculture and sustainable management of natural resources.

Geodata for agriculture and water (G4AW) improves food security in developing countries by using satellite data. Netherlands Space Office is executing

this program. It is currently implemented in a "Mobile Data for Moving Herd Management and better incomes" program of SNV Burkina Faso. Geodata, converted to relevant information on climate, weather and hazards, can help food producers and other stakeholders in developing countries. These data can be used to generate information for customized and timely agricultural advice and more efficient use of seeds, water and fertilizers. Also, food producers will be able to receive early warnings for drought, flooding and/or diseases. Mobile phone based services providing up-to-date market prices have already been proven successful in Africa²⁰.

Water

The Netherlands supports the Cooperation in International Waters in Africa (CIWA) program which assists governments in Sub-Saharan Africa in unlocking the potential for sustainable, climate-resilient growth by addressing constraints to cooperative water resources management and development. The CIWA program that contributes to cross-border water management in the Niger, the Nile, the Volta and Lake Chad. Also support to the OMVS an intergovernmental organization responsible for management of the Senegal river²¹.

NL support to the UNICEF WASH program in West Africa (evaluation report will be

published soon). The program is considered a success and will be implemented from 2018 in Burkina Faso and Niger amongst other countries. It focuses not only on WASH activities but also creates an enabling environment (community-led) for nutrition security, health (waste management), behavioral change (also at household level), sustainability (checks) and has a strong gender component (e.g. time for fetching water, creation of water sources)²².

The NL have been providing support on the nexus between water access and availability, agriculture and climate resilience (small scale irrigation), promoted integrated soil and water conservation, agroforestry and climate-smart agriculture including use of scarce water resources to safeguard food security (DryDev, PASARC-Mali, PADIN-Mali), and funded access to drinking water in Niamey (Niger) and Ndjamena (Chad).

Renewable energy and climate

The National Bio-digester Program of Burkina Faso, one of the five national programs under the Africa Biogas Partnership Program, obtained results in improving food security through the use of bio-compost, savings in non-renewable biomass and the quality of life particularly for women and children by reducing indoor air pollution and the daily burden of fuel collection. An international

conference in Ouagadougou sought to share these experiences with the aim to promote the uptake of bio-digester technology in West and Central Africa. The conference participants called upon West African states to strengthen and scale up ongoing national bio-digester initiatives. The Netherlands, HIVOS and SNV were invited to take the lead in financial and technical partnership development²³.

Energising Development (EnDev) is an energy access partnership currently financed by six donor countries: the Netherlands, Germany, Norway, United Kingdom, Switzerland and Sweden. EnDev promotes sustainable access to modern energy services that meet the needs of the poor - long lasting, affordable, and appreciated by users. EnDev works in Burkina Faso, Mali and Senegal. Since 2005, EnDev has taken a leading role at promoting access to Sustainable Energy for All. GIZ cooperates closely with RVO on the global programme level²⁴.

Partners for Resilience, one of the strategic partnerships of the Netherlands, contributes to the resilience of communities by integrating climate change adaptation and ecosystem management and restoration into Disaster Risk Reduction. With this Integrated Risk Management approach, communities strengthen their capacities to reduce the impact of disasters²⁵.

17] <https://2scale.org/resources>

18] <https://www.orangecorners.com/>

19] <https://drydev.org/>

20] <https://g4aw.spaceoffice.nl/nl/>

21] <http://www.worldbank.org/en/programs/cooperation-in-international-waters-in-africa>

22] <https://www.unicef.org/wash/>

23] <http://www.snv.org/project/africa-biogas-partnership-programme-abpp>

24] https://endev.info/content/Main_Page

25] <http://partnersforresilience.nl/en/about-us/our-vision-mission-and-approach>

Trends and limitations

With the current population growth rates the populations of the Sahel states will at least double by 2050 (see more data in metrics sections above). This growth will happen in an already alarming context of climate change, food and nutrition insecurity, agriculture and range land degradation, deforestation, land and water scarcity and pollution. This will further undermine security in the region and drive migration mostly between West-African countries and to Europe. The situation of women and youth is even more under pressure due to their social and cultural status, and lack of employment. It will be a challenge, also for the Netherlands, to turn things around, find opportunities and support economic growth.

Food security

Some 5.2 million people in the Sahel and West Africa are currently in need of food assistance. They could be 9.6 million during the next lean season in June-August 2018, if appropriate measures are not taken. In pastoral areas of Mauritania, northern Senegal, Burkina Faso, and Mali an early and severe lean season is expected, affecting negatively the livestock of pastoralist households and putting their food and nutrition security at risk. Speculative land grabs and export crops development directly influence production of local food crops. Land has become scarcer, access to land for women is more difficult in a context of increased land buying and leasing prices.

Prices of cereals are on average 25% higher than usual in all Sahel countries, further reducing access to food for poor households. Insecurity makes the delivery of assistance very challenging. Due to these combined factors, the number of people in crisis in the Sahel registers a record high since 2014 and a 20% increase compared to last year. The situation is particularly worrying in Mauritania, where more than 10% of the population already requires emergency aid. Many more people will need emergency food assistance during the lean season

in Burkina Faso and in Mali. A total of 21 Sahel country regions already have rates of severe and global acute malnutrition that are above the emergency threshold²⁶.

The Sahel's food economy is witnessing major transformations that create new opportunities and pose new challenges for food and nutrition security. Population dynamics and in particular urbanization have been major drivers of these transformations. A growing number of households are turning to markets for their food supply. In urban areas, almost all food is bought on the market. Urbanization is also accompanied by shifts in dietary patterns, which are spreading beyond the frontiers of towns and cities. More fruits and vegetables and more processed foods are being consumed, while consumption of cereals and pulses is declining. The combined effects of rapid urbanization, population growth and resulting transformations in the demand for food have had major impacts on the size of the West African food economy and its structure. A major evolution of the food economy is the rapid development of non-agricultural postharvest activities, such as processing, packaging, distribution and retail.

Water

Less than half the population of the Sahel has access to water while its demand increases with rapid population growth. The resulting threat to health and livelihoods is set to become worse with desertification likely to increase by 5–8% by the 2080s²⁷. As the climate becomes more variable, water stress and water abundance become more apparent.

Progress toward increasing access to improved sanitation has been very limited in the region. In communities across the region, more than a third of all people still do not have access to safe water, and millions drink untreated and potentially contaminated water. Women and young girls are primarily responsible for collecting water in most households without drinking water on their premises.

Climate change

The impacts of climate change on livelihoods, food and water security, ecosystems, and infrastructure, differ per country and region as well as community and individual, with gender a particularly important vulnerability factor²⁸.

Climate change has been addressed. For over 30 years, development actors have tried to address the effects of climate change. What we learned is that there is a need for integrated development and climate smart agriculture. The climate has become more unpredictable which is difficult for farmers who have only one rainy season per year. On the other hand, the droughts of the eighties have not been repeated.

Access to energy is limited, it is remarkable to witness that in most Sahel countries, also in all the larger cities, cooking is still done using wood, woodstoves or charcoal. Use of natural gas, biogas, or electricity for cooking is still at very low levels. This leads to widespread deforestation.

26] https://ec.europa.eu/echo/files/aid/countries/factsheets/sahel_en.pdf

27] C. Chabot (2016) Climate Change, Security Risks and Conflict Reduction in Africa. Berlin, Springer. Based on IPCC data.

28] Ministry of Foreign Affairs (2018, draft). Climate Change Profile: Sahel. The Hague: Ministry of Foreign Affairs/IGG.

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

Trends and limitations

Other trends

In view of the fact that about half of Sub Saharan's population is under 25 years of age, a substantial number of international migrants are youngsters. Many young people in West-Africa consider migration as a promising way to improve their lives. Economic fluctuations and instabilities, high unemployment and underemployment rates (particularly among the youth), the search for higher education, land scarcity, and climate change, are key factors influencing (young) people's decisions to move. Improved transportation, the spread of mass media and advances in communication technology and remittance mechanisms promise easier travel while enabling to retain strong economic, social, and political ties with 'home', and make migration a real or imagined possibility for a number of West-African youth. Their families may pool resources to make this happen, as decisions to migrate often are not an individual but a family affair: the family hoping to get a return on their investment.

Pastoralism has traditionally been a way of life for a large portion of the population in the Sahel region, but these traditional communities and their lifestyles are increasingly under threat. The impact of climate change, the recent conflict in Northern

Mali, the increase in illicit trades and organized cross-border crime, have all contributed to growing insecurity in the region. Rangeland is further degraded, knowledge on herd management is limited, value chains are weakly developed (dairy, meat). Tensions have also been increasing between nomad and local sedentary populations, which have sometimes led to violence and armed conflict, especially in border regions. Nomadic pastoralists experience growing difficulties in their transhumance. It is estimated that about 50 million people rely on pastoralism for their livelihoods in the Sahel and the Saharan fringes, and most of them are poor. In this context young pastoralists are radicalizing and easy to be mobilized for terrorist groups offering money and food.

Special topic: Land degradation and gender

In the Sahel region agriculture is the main economic activity, with about 80-90% of the population actively engaged in agriculture. Land degradation in the Sahel is characterized by soil degradation and is a major environmental issue affecting the region, with negative consequences on agriculture. Unsustainable agricultural practices in the region in turn promote land degradation. Climatic factors are of influence such as drought and diminishing rainfall, but also population growth, agricultural intensification and overgrazing. This results in reduction of vegetation cover, decrease in fallow periods and a reduction in the balance between fallow areas and cultivated fields, which are vital to maintaining soil fertility and reducing losses from erosion. Land degradation in drylands is also known as desertification, and is the loss of the biological or economic productivity of land. Desertification reduces agricultural output, contributes to droughts and increases human vulnerability to climate change.

In the rural areas of the Sahel, men are generally responsible for decision-making and the planning of farming activities. Nonetheless, rural women play a key role in natural resource management and achieving food security. They often grow, process,

manage and market food and other natural resources. They are generally responsible for small livestock, vegetable gardens and collecting fuel, fodder and water. Men increasingly leave to look for jobs in urban areas, leaving women to assume new roles and responsibilities on the farm.

However, women's access to and control over natural resources (such as land) and agricultural support services (including credit, extension services, etc.) are often restricted. In some cases, customary practices and laws that limit women's rights to land prevail over legislation that guarantees those rights. Insecure land tenure reduces women's and men's incentives to maintain soil quality because they have no permanent rights to the land. Without secure land rights, farmers have little or no access to credit, rural organizations and other agricultural inputs and services. Given that women and men have different roles in dryland management, environmental change has a far greater impact on women. Smallholders, particularly women, often face difficulties in obtaining credit. This is a direct consequence of their lacking ownership to land and to their low involvement in development projects and membership in rural organizations.

What to do?

First of all, integrated approaches are needed: agroforestry, integrated farming and practices that promote vegetation cover are sustainable land practices. These will provide increase agricultural productivity per unit land area and diversify farmers' sources of income, resulting in benefits for agricultural production and addressing land degradation. Restoring rangelands and sustainable land management practices can preserve drylands biodiversity, restore ecosystem functions, and halt land degradation. Pastoralists depend on drylands resources such as grasslands and seasonal ponds to nourish their livestock. Sustainable pasture management through managed herd mobility can prevent degradation and sustain livelihoods. Governments can institute appropriate policies to introduce new and sustain traditional practices, grazing lands can be recognized as protected areas, to prevent their conversion to other land uses. Sustainable land management practices often involve protecting biodiversity to boost soil organic matter and soil moisture.

Farming practices (improved and traditional) build up soil moisture and restore degraded land. Practices like agroforestry and low tillage agriculture

Trends and limitations



are based on traditional practices that have been revived and adapted to protect soil moisture and fertility of crop lands. Governments can encourage these traditional practices, and discourage less sustainable forms of land management.

By incorporating a gender perspective in policy, projects and programs, innovative ways of combating dryland degradation and food insecurity can be promoted, notably through a better understanding of men's and women's roles, and their respective concerns and needs. The result is a more sustainable, relevant and equitable development based on their respective local knowledge, and on ecological and socio-cultural factors. Such a gender-sensitive development represents a great opportunity for rural men and women to join their strengths to preserve food security and the natural resource base in ways that are sustainable.

The United Nations Convention to Combat Desertification refers to "a land degradation-neutral world" There are at least five policy areas that need to be addressed in supporting women as agents for achieving land degradation neutrality. These are: balancing of workloads between men and women; land tenure security; inclusion in decision-making; access to sustainable

land management techniques and knowledge; and improving subsistence farming resilience. It will also require changes to current mechanisms and structures so as to enable women to realize their full potential, using and managing their lands sustainably - and being rewarded for it. The objective would be to boost women's empowerment so they can play more effective roles in food production whilst sustainably managing their land, minimizing the negative effects of climate change and biodiversity loss, and harnessing knowledge and technology (text based on Samandari, 2017; FAO, 2003; IUCN, 2017 and Doso, 2014).

There is a need for registration of land ownership and of land use, quick and transparent procedures ensuring that land use claims by women and youth are guaranteed for longer periods to ensure economic investments. This also applies to access to public or common land and or (new) land availability after land improvement or small scale irrigation. Access and use by women and youth needs special attention and matched to availability of inputs and credit facilities and fit into customary of formal land tenure and access and arrangements with other users like pastoralists. Women are community members, creating land elsewhere, like converting and improving Sahara desert

lands is not an option, as it will disrupt social and cultural structures.

Regional policies (Green Wall, Sahel Alliance, Sahel Irrigation Initiative, Green Climate Fund etc.) national and local integrated approaches (DryDev) are needed to adequately address the problem of land degradation and gender.

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

Ranking on main result areas

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

Food & Nutrition Security

• 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 system 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. Focus on nutrition sensitive agriculture, especially in the North given the alarming nutrition indicators. Prioritize FNS interventions which have proven to be conflict sensitive in the Sahel context.

• **Promoting and supporting pastoralism and pastoralists.** 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. As this is a complex theme, the Netherlands could decide with West African governments to select specific cross-border areas to implement a pastoralism support program (e.g. Burkina Faso, Mali and Niger cross border areas). Demand for meat is increasing with a further developing middle class, especially in coastal countries. Trade facilitation would be an opportunity, creating livestock markets in border areas with the necessary (cattle) markets, veterinary, water and food facilities and transport and agro logistics. Would also need cross-border legislation for herd movements.

• **Encouraging Public Private Partnerships for value chain development and entrepreneurship:** Extend the number of countries for the 2Scale program beyond only Mali and Nigeria to stimulate inclusive agribusiness and public private partnerships.

• **Improving access to quality seed:** Most farmers in the Sahel 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. 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.

• **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 smallholders 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.

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

Ranking on main result areas

Water

Weak land governance can become a root cause of economic stagnation, ecosystem degradation, deprivation and injustice. Countries in the Sahel have 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.

- **Reinforcing “trade-corridors”** between e.g. consumers in West African Coastal cities (vegetables), Northern African cities (meat) and agricultural producers in the Sahel.
- **Making G4AW data also available in Senegal, Niger, Chad and Nigeria** and provide farmers with relevant information on climate, weather and hazards, customized and timely agricultural advice and more efficient use of seeds, water and fertilizers.

- **Reinforcing the water sector.**

At different levels:

- work on the nexus between water access and availability, agriculture and climate resilience (**small scale irrigation**);
- continue to support **cross-border river management organisations**;
- Promote **climate-smart (agriculture) use of scarce water resources** to safeguard food security; preventing and mediating local conflicts;
- Provide **access to drinking water** (like in Niamey and Ndjamena) for larger and smaller cities in the Sahel.

- **Stimulate climate resilient WASH activities:**

Following the success of the UNICEF program in West Africa, this program will now be rolled out to Niger, Burkina Faso and Nigeria. Consider implementation in Chad and a follow-up in Mauretania. Improve water and sewerage infrastructure in urban growth centres through collection and reuse of water, improved drainage and purification of waste water to improve the quality of life in these growth centres and to enable development.

Climate/renewable energy

- **(Scaling-up) climate resilient integrated territorial based programs.**

The Netherlands have funded and implemented integrated, territorial based (landscape, catchment areas) interventions such as the Drylands-Development Program (Mali, Burkina Faso and Niger) and the PASARC/PADIN programs in Mali. These interventions combine integrated soil and water management, climate smart agriculture (erosion control, soil fertility technologies, drought resistant crops), small scale irrigation, agro-forestry, gardening, fisheries, warehouse receipt systems etc. with improved marketing, access to credit facilities and organisation building. Gender (women, youth, marginal groups) sensitive approaches are included in the methodology. The institutional set-up of DryDev (many intervening NGOs, local government involvement) has been quite complex but results for food security, water management and climate resilience are clear. Based on the evaluations and lessons learnt, upscaling is an opportunity (to neighboring and other villages, in a municipality, in a region and to Senegal, Chad and Northern Nigeria). The Netherlands should develop, monitor and evaluate up-scaling strategies, jointly with partners.

- **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 (see Burkina country profile): extend the African Biogas initiative to more countries in the Sahel (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 the Sahel region 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.).

For renewable energy, besides central government policies, mostly decentral solutions need to be taken into account.

- **Supporting the Sahel to adapt to climate change**

while enhancing economic opportunities, including in the agricultural sector, is critical. The contribution of current Private Sector Development instruments, the bilateral water/food security program in Mali, trade missions and Dutch knowledge institutes to proactively boost the renewable energy transition, encourage innovative solutions for climate adaptation and prevent local/regional conflicts around scarce natural resources will be made more explicit (Inter-ministerial Mali/Sahel strategy).

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

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.

FOOD AND NUTRITION SECURITY	SUGGESTED DIRECTION
Reduced malnutrition	Developing food transformation knowledge and support programs
Promote agricultural growth	<ul style="list-style-type: none"> • (Scaling-up) climate resilient integrated territorial based programs • Promoting and supporting pastoralism and pastoralists • Improving access to quality seed
Sustainable food systems	Developing food transformation knowledge and support programs
Enabling environment	<ul style="list-style-type: none"> • Encouraging Public Private Partnerships for value chain development and entrepreneurship • Enhancing (better) land governance • Reinforcing trade-corridors • Making G4AW data also available in Senegal, Niger, Chad and Nigeria
WATER	SUGGESTED DIRECTION
Water resources management	Support small scale irrigation
Transboundary river basins management	Support cross-border river management organizations
Increased water productivity	Promote climate-smart (agriculture) use of scarce water resources Stimulate climate resilient WASH activities
Access to safe drinking water and sanitation	Provide access to drinking water for larger but also smaller cities in the Sahel
CLIMATE*/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	(Scaling-up) climate resilient integrated territorial based programs

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

SAHEL REGIONAL PROFILE	METRICS	WHAT NL ACTORS DO
	REGIONAL INITIATIVES	TRENDS & LIMITATIONS
	DONOR SUPPORT	MAIN RESULT AREAS

Linking to IGG result areas

Additional reflections

As described in the Sahel strategy note **a regional approach for the Sahel** is an opportunity to address cross border trade flows and pastoralism that contribute to food security. Fragility is mostly in border regions, a country approach would not be able to address this. The establishment of a more permanent coordination mechanism and dedicated regional budget – in line with the Horn of Africa and Great Lake region - would improve harmonization during its implementation phase.

Don't try and do everything yourself but **link up with other donors, existing regional programs and policies**. Indicate what could be the added value of the NL and involve as much as possible national governments and if local governments (districts, municipalities). Choose themes for which Sahel countries and NL interests merge (win-win). But think regionally (climate change, cross border trade and pastoralism) but not one size fits all so act locally: local implementation with embassy responsibility and involvement. The starting point for the intensification of efforts in the Sahel is to strengthen local institutions so that results can be continued after the financing has ended.

Continue to address **Gender equality**: Sahel countries perform poorly on gender equality. Strengthening

the economic position of women constitutes an opportunity. Improving their access to information, education and resources will boost agricultural output and enable women to make their own decisions in areas such as sexual and reproductive health, politics and civic activism.

Enhancing **youth employment, economic opportunities and capacity development**. First of all, Integrate youth employment in all the result areas and enhance economic opportunities of youth in local economic development and through skills development (e.g. agriculture skills). Luxembourg and Switzerland have a long lasting involvement in capacity building - the Netherlands could join. The education sector and (mostly rural) labor opportunities should be more aligned. Generally youth are less interested in traditional agriculture, more interested in high value crops, processing, book keeping, agriculture info-systems (use of smart phones), soil sampling and analysis technologies, integrating and using renewable energy, transport and other job creating elements of the value chains. Work in peri-urban or small cities where there are urban-rural linkages and opportunities for youth employment. Young men and women - especially those with an effect on broad development - gain access to

innovations such as improved sowing seed, efficient irrigation methods and mechanization to make the work in agriculture and livestock farming attractive. In addition, the focus is on a transition to more market-oriented rain-dependent agriculture, based on an integrated area-based approach to ensure sustainability and resilience to climate change.

Several interviewees argued to include **Mauritania** in this Sahel region profile. Mauritania is part of the G5 Sahel group but is often forgotten. It has also benefitted from the Netherlands supported UNICEF WASH program which was really appreciated by the national government. The support was of great importance to Mauritania and made the Netherlands one of the most important partners of Mauritania in this area. The Mauritanian government request the Netherlands to contribute to the second phase of the program.

Colofon

This regional profile is part of a series of 12 profiles of 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 (WCIDI), as part of the Support Facility of Food & Nutrition Security.

Authors: Gerard Baltissen (KIT); Herman Brouwer, Bram Peters and Lavinia Plataroti (all WCIDI). May 2018. © 2018 Wageningen Centre for Development Innovation info.cdi@wur.nl | www.wur.eu/cdi

Photo: Olivier Girard, Ken Doerr and Matt Timalty, <https://www.flickr.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.

Special thanks: to Cheikh Dieye (ENDA), Paul Tholen, Martin van Vliet, Jan Hijkoop, Zainab Akariou, Monique Calon, Joke Baak, Irene Knobben, Frank van der Vleuten and Frits van der Wal for suggestions and comments.

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-from-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/>

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

Doso, S., 2014. Land degradation and agriculture in the Sahel of Africa: causes, impacts and recommendations. *J. Agric. Sci. Appl.* Volume 3, Issue 3. 2014 PP. 67-73.

ECDPM, 2017A. Political economy of regional organizations in Africa. The Niger Basin Authority: Reconciling upstream and downstream interests on the Niger River.

ECDPM, 2017B. Political economy of regional organizations in Africa. The Lake Chad Basin Commission (LCBC): Water and security at an inter-regional cross-roads

FAO, 2003. Gender and Sustainable Development in Drylands: an Analysis of Field Experiences

Galeazzi, G., Medinilla, A., Marclint Ebiede, T., Desmidt, S. 2017. The Lake Chad Basin Commission (LCBC): Water and security at an inter-regional cross-roads. ECDPM policy brief, December 2017.

IUCN, 2017. Drylands and land degradation. Issues brief June 2017.

Samandari, A.M, 2017. Gender-responsive land degradation neutrality. Global land outlook working paper.

World Bank, 2017. Sahel Irrigation Initiative Support Project. <http://projects.worldbank.org/P154482/?lang=en&tab=overview>