



## **Looking back at the Belgian development cooperation in the water sector in Niger over the past 10 years**

Last update : July 2020

### **Status of SDG6**

A few charts on the status of water resources and on SDG6 in Niger are in Figure 1 to Figure 4. More detailed and updated information can be found on the [Niger's country snapshot](#) provided in the [UN-Water SDG6 data portal](#), and the WHO – UNICEF Joint Monitoring Program's [Niger's country file](#).

### **Belgian and international ODA to water sector**

Based on the database reporting the Belgian ODA, 36.400.000 EUR have been allocated to the water sector in Niger between 2008 and 2019, which corresponds to 5% of the total Belgian ODA to water sector through bilateral aids (Figure 5), and to 12% of the total Belgian ODA to the country (Figure 6). Main contractors have been Enabel, government partner country DGCD and to a lesser extent Ninafri NGO (Figure 7). Projects and programs have mainly been implemented in basic and large water infrastructures. The list of water program and projects are in Table 2. According to OECD's Credit Reporting System, DAC countries giving more than 1million US\$ to Niger for the Water and Sanitation sector between 2014 and 2018 are France (59M US\$), Luxembourg (31M US\$), Denmark (25M US\$), Switzerland (19M US\$), Belgium (13M US\$) and the United States (4M US\$) (Table 1).

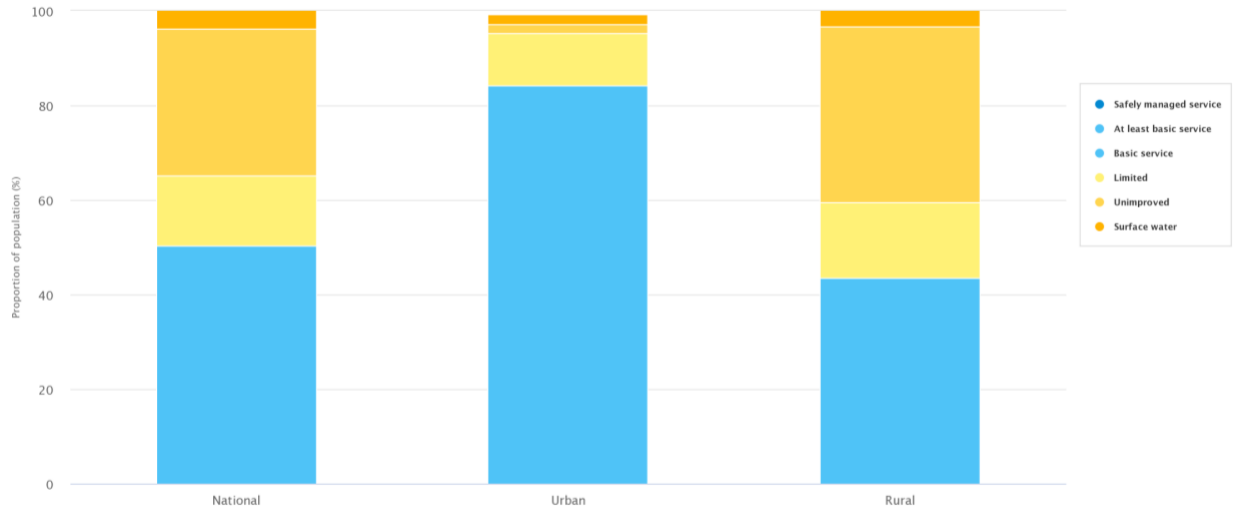
### **Belgian organisations with projects in Niger over the course of the past 10 years**

Twelve Belgian organisations having expertise in water have reported having been active in Niger between 2010 and 2019 (Table 3). Three are NGOs, one is NPO or fourth pillar, four are from the private sector, one is a public utility, and three are research institutions.

### **Academic water research in Niger over the course of the past 10 years**

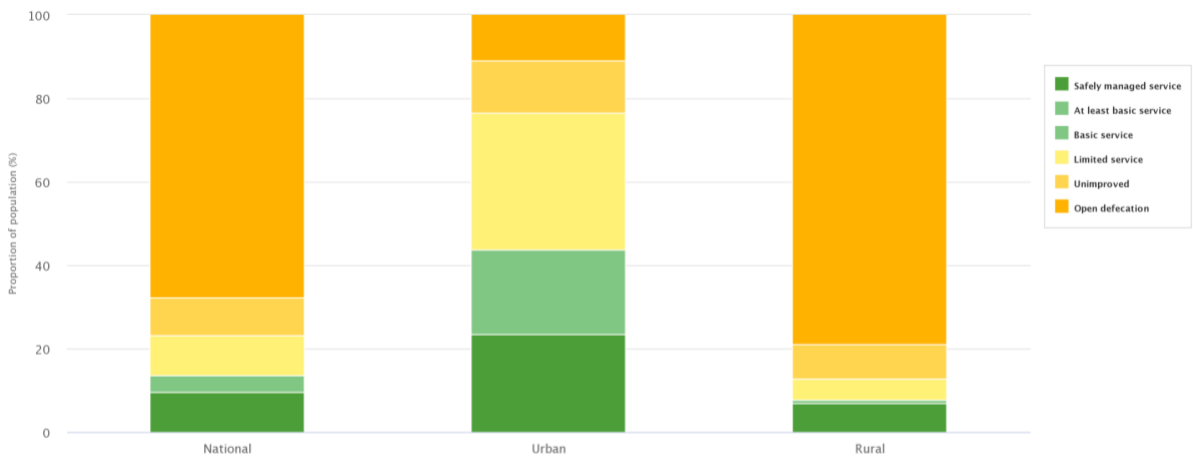
Five peer-reviewed papers have been published by research team including authors from Belgium and Niger. Research domains are in the field of water management, crop development and bioindicators of pollution (Table 4).

**Figure 1. Proportion of population using drinking water services in Niger, by service level and by location (SDG6.1.1, 2017).**



Data source: WHO, UNICEF  
Exported from UN-Water <https://sdg6data.org> on 25 July 2020

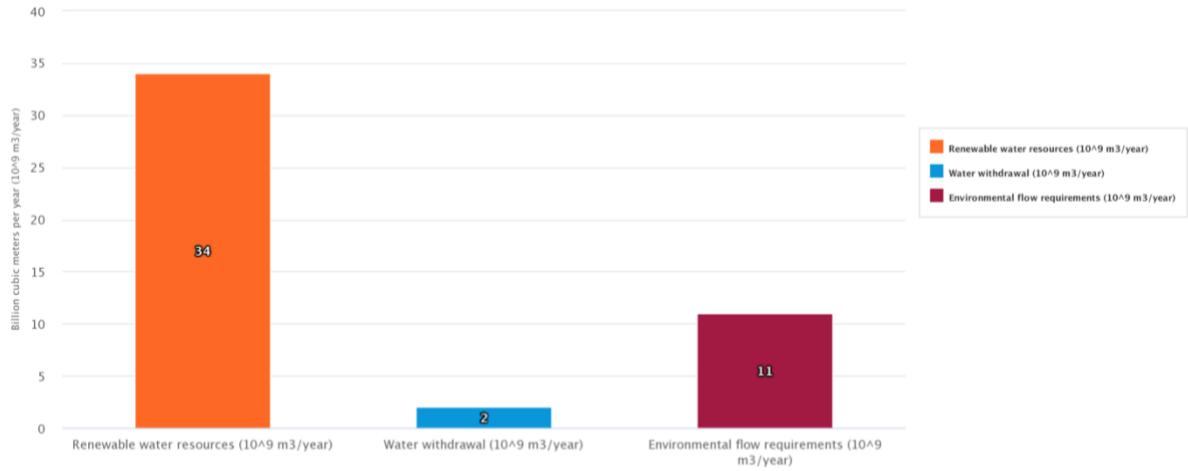
**Figure 2. Proportion of population using sanitation services in Niger, by service level and by location (SDG6.2.1a.; 2017).**



Data source: WHO, UNICEF  
Exported from UN-Water <https://sdg6data.org> on 25 July 2020

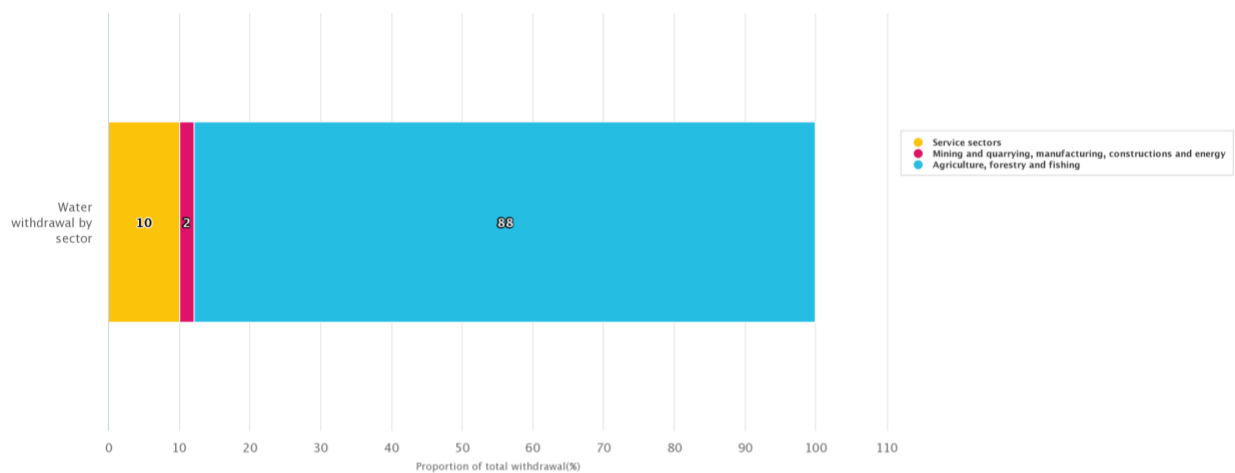
**Figure 3. Water resources and withdrawal in Niger, per capita and by source.**

- Long-term average annual precipitation in depth: 151 (mm/year) (2017)
- Renewable water resources: 1,585 m<sup>3</sup> per capita (2017)
- Water withdrawal: 81 m<sup>3</sup> per capita (2016)
- Environmental flow requirements: 32 % of the renewable water resources (2017)



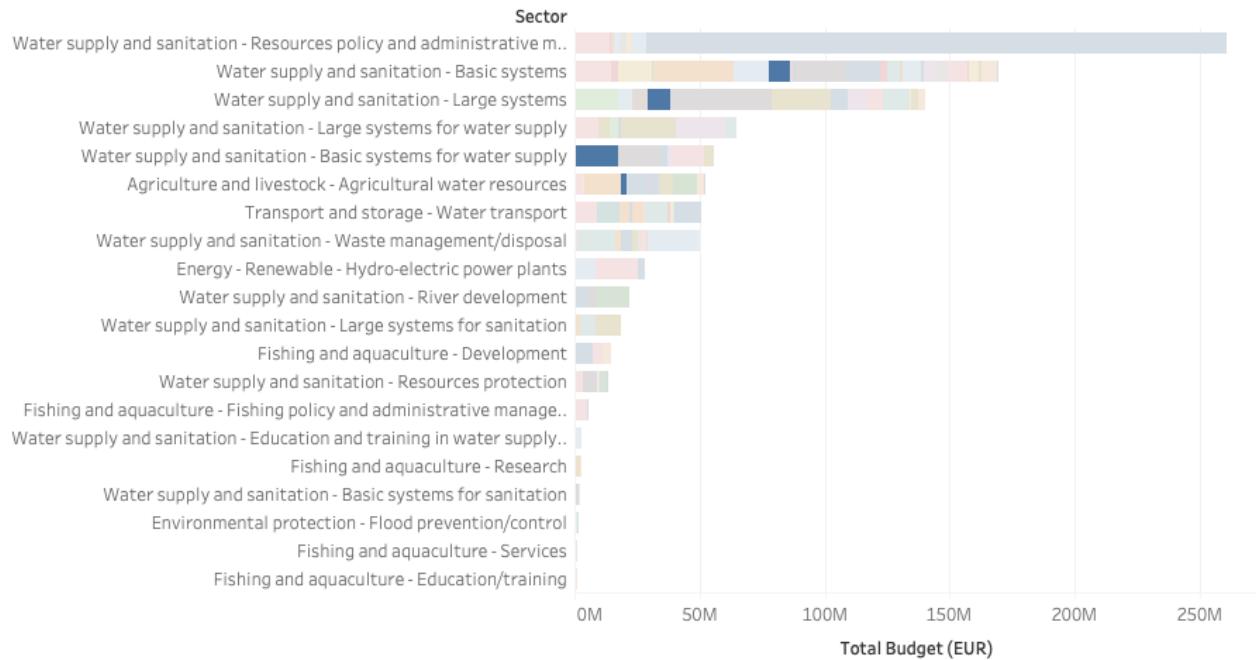
Data source: FAO  
Exported from UN-Water <https://sdg6data.org> on 25 July 2020

**Figure 4. Water withdrawal by sector in Niger, as a percentage of total water withdrawal (2016).**

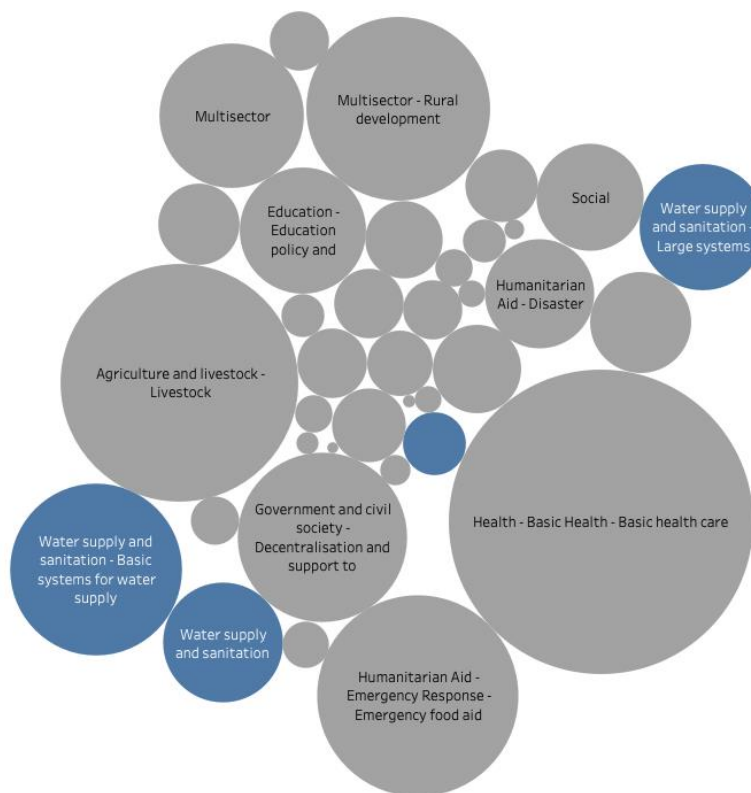


Data source: FAO  
Exported from UN-Water <https://sdg6data.org> on 25 July 2020

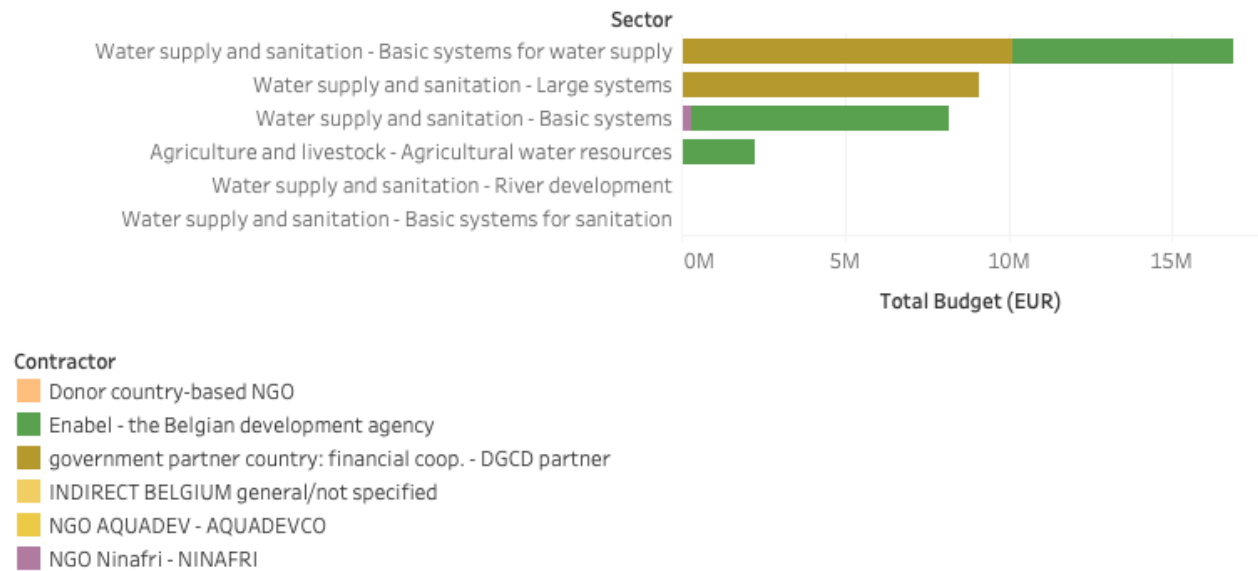
**Figure 5. Total Belgian ODA to water per sub-sectors, with the ODA to Niger highlighted in blue.**



**Figure 6. ODA to water (blue) in comparison to other sectors (grey) in Niger. The size of the circle is proportional to the budget.**



**Figure 7. Contractors per water sector**



**Table 1. ODA water supply and sanitation sector (ODA sector code 140) to Niger by DAC countries, cumulated between 2014 and 2018<sup>1</sup>.**

DAC Countries	2014 - 2018 Commitment (Millions 2018 US\$)
France	\$ 59,14
Luxembourg	\$ 30,84
Denmark	\$ 25,32
Switzerland	\$ 18,59
Belgium	\$ 12,71
United States	\$ 3,85
Italy	\$ 1,20
Spain	\$ 0,70
Japan	\$ 0,28
Ireland	\$ 0,24
Finland	\$ 0,03
Germany	\$ 0,02

<sup>1</sup> Source: OECD Credit Reporting System. <https://stats.oecd.org/>. Accessed June 2020.

**Table 2. List of water projects funded by Belgian ODA.**

Typology: C01-Project-type interventions.

Contractor	Type	Title	Effective Start Dt	Effective End Dt	Budget (EUR)
Donor country-based NGO	C01				
Enabel - the Belgian development agency	C01	Dorps en pastorale hydrauliek, fase 2	12-04-2013	12-03-2018	6744000
	C01	Ontwikkeling van irrigatie in de regio Tillaberi	21-12-2007	11-12-2012	2250951
	C01	Hydraulique Dosso	21-04-2006	31-03-2012	7903601
Government partner country: financial coop. - DGCD partner	C01	Lening van Staat tot Staat - ongebonden hulp- financiering van drinkwatervoorziening	23-09-2010	10-02-2015	1088012
	C01	Lening van Staat tot Staat - ongebonden hulp - financiering van de uitbreiding van de drinkwatervoorziening	23-09-2010	10-02-2015	8000000
	C01	Noodprogramma - verhoging van de drempel van Goudel op de Niger rivier teneinde de capaciteit van de waterreserves te vergroten			
	C01	Tweede drinkwatervoorzieningsproject voor Niamey	22-06-2016		10100000
INDIRECT BELGIUM general/not specified	C01	Aide de la province Flandre-Orientale: l'approvisionnement en eau et des latrines			
	C01	Loterie Nationale -- MDG's Six puits consolidés pour permettre de vivre dignement			
		Hulp Provincie Limburg - Het boren van een waterput met pomp op zonne-energie en watertoren in het dorp Choukoura, met ondergrondse waterleiding voor de buurdorpen Bayawa 1 en Bayawa 2 fase 1- NIGER			
		Aid of province West-Vlaanderen			
NGO AQUADEV - AQUADEVCO	C01	Loterie Nationale - MDG's Amélioration de l'accès à l'eau potable et de la gestion durable des ressources en eau dans la région de Zinder			
NGO Ninafri - NINAFRI	C01	Projet de gestion de l'eau	25-01-2006	31-12-2007	
	C01	Aide de la province d'Anvers: eau			
	C01	Water en Sanitatieproject Torodi			110538
	C01	L'eau potable, l'assainissement et project d'Irrigation Filingué, au Niger			129120
	C01	Projet de l'eau et de sanitation Bonkougou	01-01-2008		45000
	C01	Water en Sanitatieproject Tadabalass			

**Table 3. Belgian organizations in the water sector that reported having had projects in Niger over the course of the past 10 years.**

Source: [Water Nexus database of water Actors](#). Might not be a comprehensive list.

Sector	Acronym	Name	Website	Keywords	Description
Government-recognised NGO	VSF / DZG	VSF Dierenartsen Zonder Grenzen Belgium	www.veterinairensanfrontieres.be - www.dierenartsenzondergrenzen.be	Animal Water Supply	/
	CI.be	Caritas International	www.caritasinternational.be	Food Security-Agroecology-Livelihoods-Humanitarian Aids-Migration	La thématique principale de nos activités est "la sécurité alimentaire" (dans lequel s'intègrent différentes activités liées à l'eau) ou la réponse à des catastrophes.
	CRB	Croix-Rouge de Belgique	www.croix-rouge.be	WASH-Réduction Des Risques De Catastrophes-Nutrition (Wash In Nut	/
NPO or 4th pillar organisation	RIKOLTO	RIKOLTO ( ex-Vredeseilanden)	www.rikolto.org	Sustainable Agriculture- Harvesting-Smallholder Farmers- Building Bridges- Fair Trade	Empowerment and support for farmers.
Private sector organisation		Hydroscan	www.hydroscan.be	Hydraulic Modelling, Asset Management-Modélisation (Hydrologique Et Hydraulique)- Gestion Patrimoniale Des Réseaux (Asset Management)-Audit Réseau Eau Potable (Détection Fuites)- Prévisions Crues / Risques Inondations / Changement Climatique-Gestion Des Eaux Pluviales	/
		Sotrad Water	www.sotradwater.be	Treatment- Pumps- Ultra Filtering- Stockage- Solar	/
	Hyrdo-rdi	Hydro-R&D International	www.hydro-rdi.eu	/	/
	SHER	SHER Ingénieurs-Conseils s.a.	www.sher.be	Impact Research- Water Treatment- Alimentation- Potable Water- Irrigation- Hydroelectricity	Water research office



Sector	Acronym	Name	Website	Keywords	Description
Public utility / enterprise	VLIR-UOS	Vlaamse Interuniversitaire Raad - Universitaire Ontwikkelingssamenwerking	www.vliruos.be	Higher Education- Outreach	/
Research institute or team; Knowledge center	Uliege - UEE - HGE	ULiege, Urban and Environmental Engineering Research Unit, Hydrogeology and Environmental Geology	www.uee.uliege.be/cms/c_3680052/en/ueenew-hydrogeologie-et-geologie-de-l-environnement	Groundwater- Groundwater Quantity- Groundwater Quality- Hydrogeology- Groundwater Vulnerability	/
	ULiège - EED	Water, Environment & Development lab - Department of environmental sciences and management - University of Liège		Integrated Water Resources Management- Irrigation- Decision Support Tools- Remote Sensing- Food Security	/
	UCLouvain- ELI-GERU	UCLouvain, Earth and Life Institute	https://uclouvain.be/en/research-institutes/eli/elie	Agro-Hydrology-Erosion And Land Conservation-Remote Sensing And Hydrogeophysics-Irrigation / Drainage -Soil Water Plant Relationships-Integrated Water Resources Management	ELI pioneers fundamental and applied research to understand the basic processes of the Earth & Life system. The Institute designs research-based solutions at different scales to meet the major challenges associated with the sustainable development of the Earth and Life System. ELI promotes and stimulates interdisciplinary interactions between scientists of complementary expertise that aims to understand the processes controlling the dynamics of the Earth and Life systems at spatial scales deriving from molecules to organisms populations up to global cycles, and time scales from sub-daily to millions of years; to identify drivers of change through quantitative monitoring of indicators and application of hierarchical models; and to innovate in technical management and regulation, both in natural and industrial processes and systems, including renewable resource development and agricultural policy.

**Table 4. Peer-reviewed, academic publications on water co-published with researchers from Belgium and Niger between 2010 and 2019.** Belgian authors are in bold font.

Authors	Belgian Insitutions	Title	Year	Journal	DOI
Fatondji D., Martius C., <b>Biielders C.L.</b> , Vlek P.L.G., Bationo A., Gerard B.	Université Catholique de Louvain, Louvain-la-Neuve.	Effect of planting technique and amendment type on pearl millet yield, nutrient uptake, and water use on degraded land in Niger	2006	Nutrient Cycling in Agroecosystems	<a href="https://doi.org/10.1007/s10705-005-6209-9">https://doi.org/10.1007/s10705-005-6209-9</a>
<b>Biielders C.L.</b> , Michels K.		On-farm evaluation of ridging and residue management options in a Sahelian millet-cowpea intercrop. 2. Crop development	2002	Soil Use and Management	<a href="https://doi.org/10.1079/SUM2002136">https://doi.org/10.1079/SUM2002136</a>
Van Duivenbooden N., Pala M., Studer C., <b>Biielders C.L.</b> , Beukes D.J.		Cropping systems and crop complementarity in dryland agriculture to increase soil water use efficiency: A review	2000	Netherlands Journal of Agricultural Science	<a href="https://doi.org/10.1016/S1573-5214(00)80015-9">https://doi.org/10.1016/S1573-5214(00)80015-9</a>
Alhou B., Issiaka Y., Awaiss A., <b>Micha J.-C.</b>	FUNDP, Département de Biologie, Unité de Recherche en Biologie des Organismes, Bruxelles.	First inventory of macroinvertebrates of River Niger in Niamey as bioindicators of urban and industrial pollution [Premier inventaire des macro-invertébrés du fleuve Niger - Niamey comme bioindicateurs de la pollution urbaine et industrielle]	2014	Hydroecologie Appliquee	<a href="https://doi.org/10.1051/hydro/2014002">https://doi.org/10.1051/hydro/2014002</a>
Garba M., <b>Cornelis W.M.</b> , <b>Steppe K.</b>	Department of Soil Management – International Centre for Eremology, Ghent University, Ghent.  Laboratory of Plant Ecology, Ghent University, Ghent.	Effect of termite mound material on the physical properties of sandy soil and on the growth characteristics of tomato ( <i>Solanum lycopersicum</i> L.) in semi-arid Niger.	2011	Plant and Soil	<a href="https://doi.org/10.1007/s11104-010-0558-0">https://doi.org/10.1007/s11104-010-0558-0</a>