



Looking back at the Belgian development cooperation in the water sector in Senegal over the past 10 years

Last update: June 2020

Status of SDG6

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

Belgian and international ODA to water sector

Based on the database reporting the Belgian ODA, 57.000.000 EUR have been allocated to the water sector in Senegal between 2008 to 2019, which corresponds to 8% of the total Belgian ODA to water sector through bilateral aids (Figure 5), and to 29% of the total Belgian ODA to the country (Figure 6). Main contractors have been Enabel and to lesser extent Government Partner country - DGCD partner and the NGO Solidargo (Figure 7). Projects and programs have mainly been implemented in basic and large water infrastructures and agricultural water. 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 Senegal for the Water and Sanitation sector between 2014 and 2018 are Japan (257M US\$), France (190M US\$), the United States (29M US\$), Belgium (12M US\$), Spain (6M US\$), Korea (6M US\$) and Luxembourg (6M US\$) (Table 1).

Belgian organisations with projects in Senegal over the course of the past 10 years

Twenty-eight Belgian organisations having expertise in water have reported having been active in Senegal between 2010 and 2019 (Table 3). Eight are NGOs, one is NPO or fourth pillar, six are from the private sector, three are public agencies, one group, two public utility, and seven are research institutions.

Academic water research in Senegal over the course of the past 10 years

Five peer-reviewed papers have been published by research team including authors from Belgium and Senegal. Research domains are in the fields of health, hygiene and crops' water stress (Table 4).

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

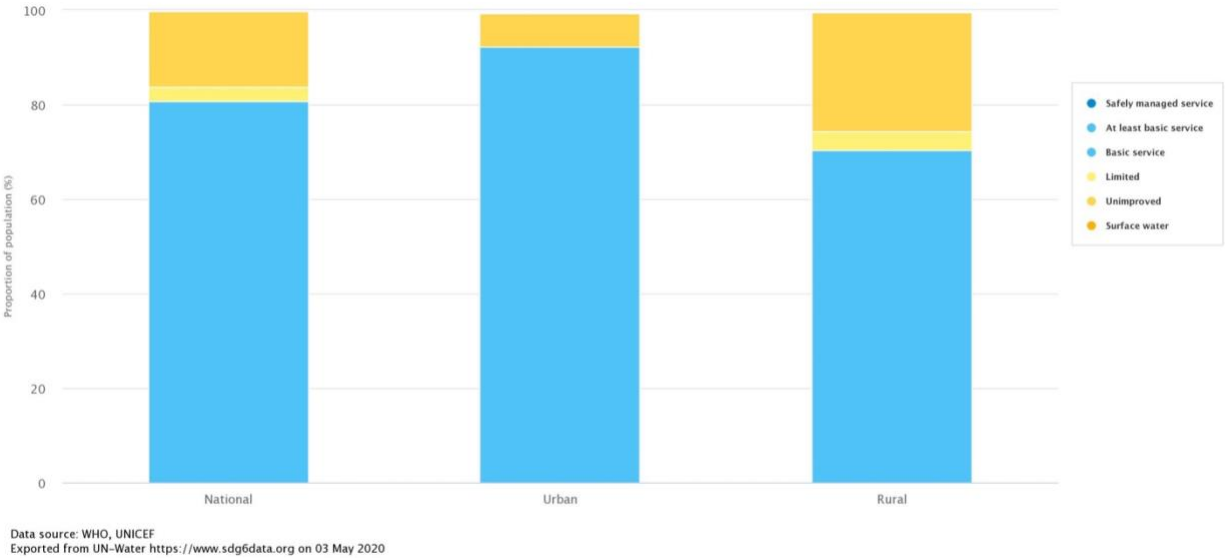


Figure 2. Proportion of population using sanitation services in Senegal, by service level and by location (SDG6.2.1a.; 2017).

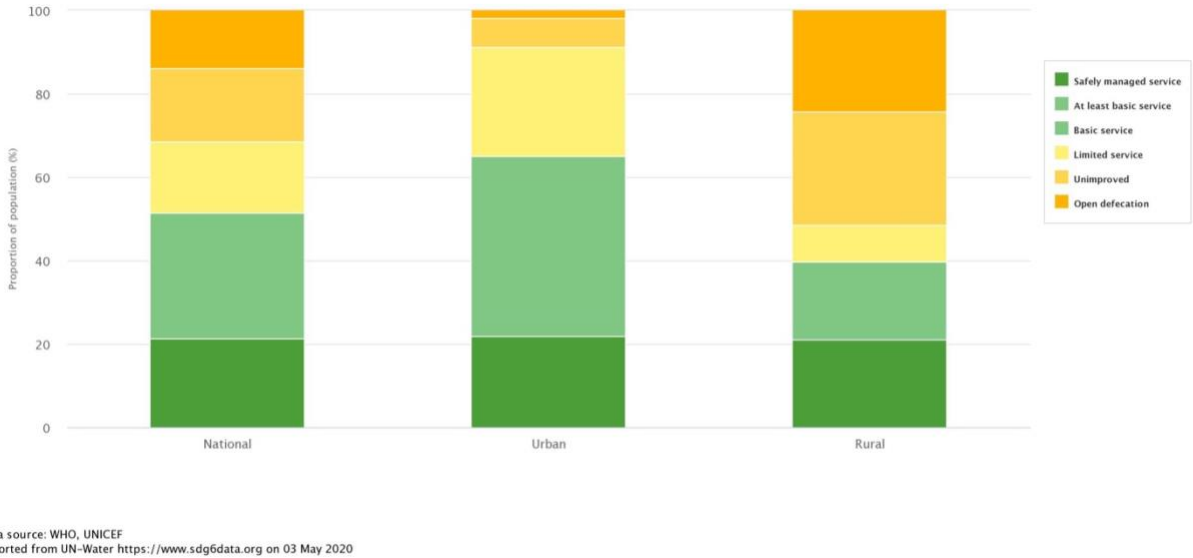
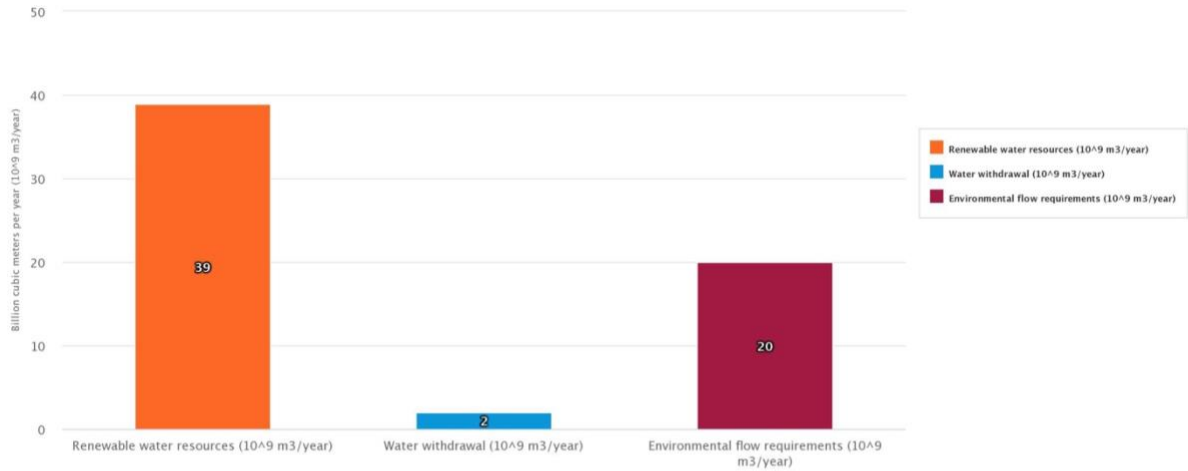


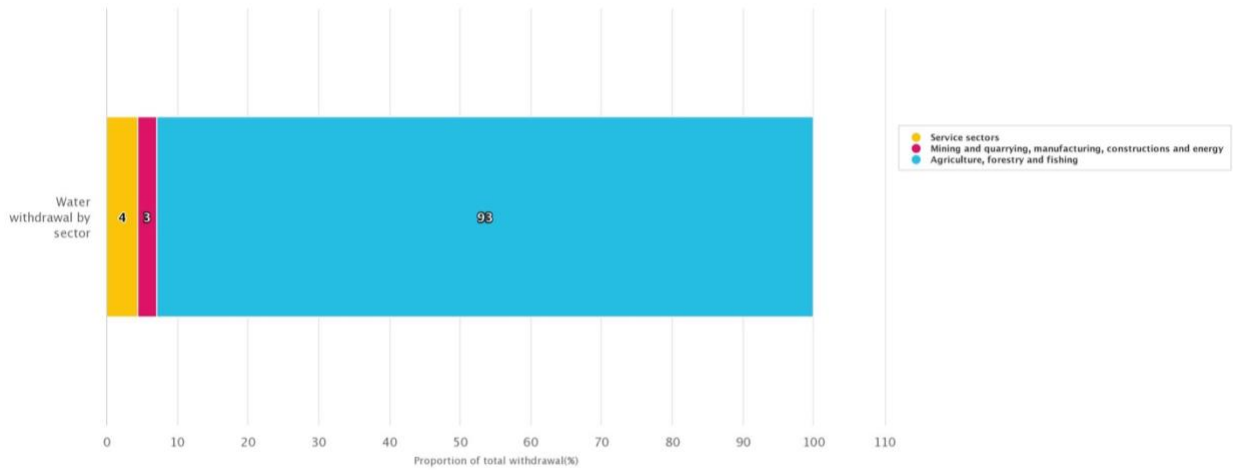
Figure 3. Water resources and withdrawal in Senegal, per capita and by source.

- Long-term average annual precipitation in depth: 1,274 (mm/year) (2017)
- Renewable water resources: 1,154 m³ per capita (2017)
- Water withdrawal: 43 m³ per capita (2000)
- Environmental flow requirements: 80 % of the renewable water resources (2017)



Data source: FAO
Exported from UN-Water <https://www.sdg6data.org> on 03 May 2020

Figure 4. Water withdrawal by sector in Senegal, as a percentage of total water withdrawal (2002).



Data source: FAO
Exported from UN-Water <https://www.sdg6data.org> on 03 May 2020

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

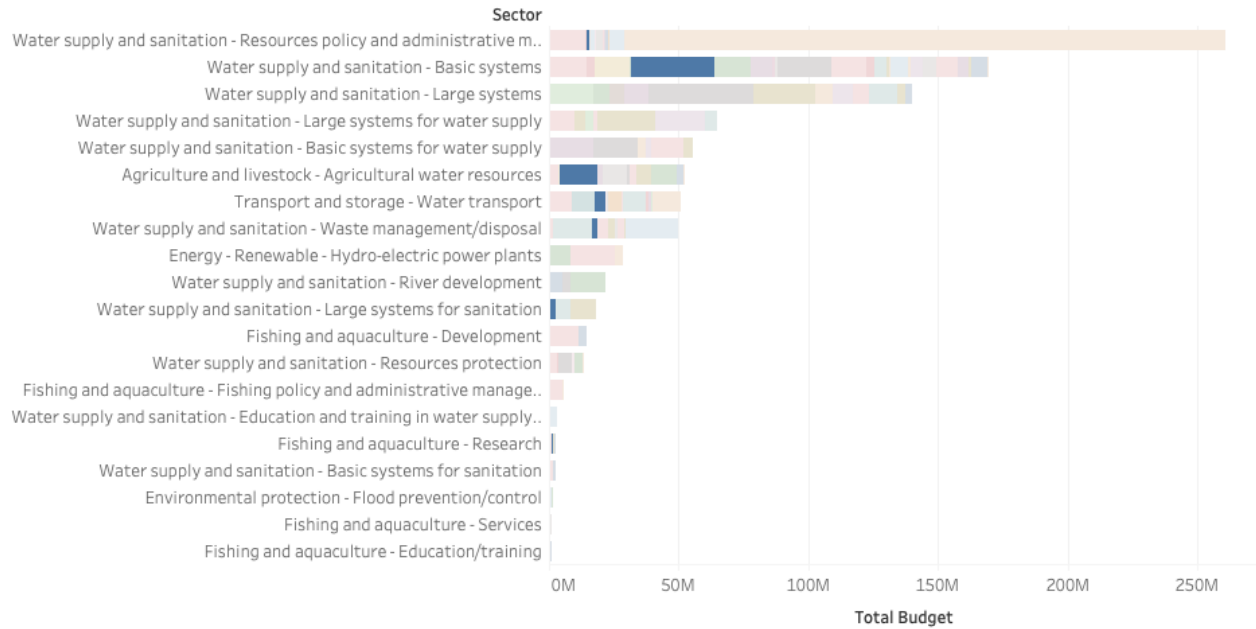


Figure 6. ODA to water (blue) in comparison to other sectors (grey) in Senegal. The size of the circle is proportional to the budget.

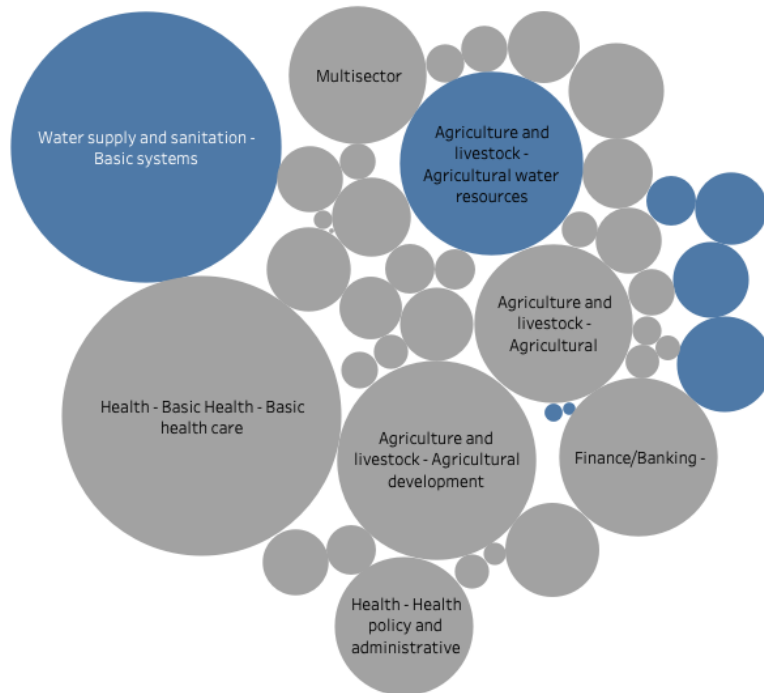
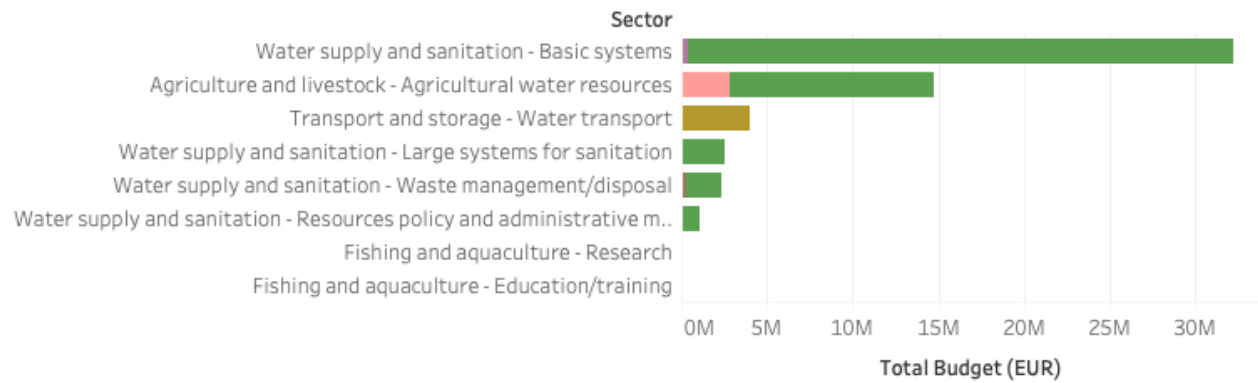


Figure 7. Contractors per water sector.



Contractor

- ARES - Académie de Recherche et d'Enseignement supérieur
- Enabel - the Belgian development agency
- government partner country: financial coop. - DGCD partner
- INDIRECT BELGIUM general/not specified
- NGO Le Monde selon les femmes
- NGO local in recipient country
- NGO Solidagro (ex Bevrijde Wereld - BW/Terre Nouvelle - TN)
- Private sector donor country
- Vereniging van Vlaamse Steden en Gemeenten - VVSG

Table 1. ODA water supply and sanitation sector (ODA sector code 140) to Senegal by DAC countries, cumulated between 2014 and 2018¹.

DAC Countries	2014 - 2018 Commitment (Millions 2018 US\$)	
Japan	\$	257,49
France	\$	190,35
United States	\$	29,39
Belgium	\$	11,94
Spain	\$	6,12
Korea	\$	5,81
Luxembourg	\$	5,78
Italy	\$	0,76
Poland	\$	0,39
Germany	\$	0,23
Switzerland	\$	0,16
Norway	\$	0,15
United Kingdom	\$	0,13
Slovenia	\$	0,12
Canada	\$	0,10

¹ 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; **D02**-Other technical assistance.

Contractor	Type	Title	Effective Start Dt	Effective End Dt	Budget (EUR)
ARES - Académie de Recherche et d'Enseignement supérieur	D02	Project Eigen Initiatieven (PIC) 2006pwaardering van de ecologische en hydro-agrarische mogelijkheden van de vallei van de Senegal stroom in het departement Dagana door intensieve aquacultuur van Oreochromis niloticus		31-12-2013	142162
Enabel - the Belgian development agency	C01	Project voor verbetering van waterdiensten en -sanering in rurale gebied	12-12-2014		6500000
	C01	Bijstand ter verbetering van de waterkwaliteit (PEPAM AQUA)	17-06-2010	29-04-2014	1076865
	C01	Drinkwater en sanitatie in het aarnotenbekken (PEPAM-BA)	20-12-2007	31-12-2015	10466653
	C01	Drinkbaar water voor het aardnotenbekken (PARPEBA)	28-03-2003	31-12-2010	14826271
	C01	Steun aan de sanering van de stad Saint-Louis (PANSL)	23-02-2004	30-06-2013	1969155
	C01	Gezondmakingsinfrastructuur in het kwartier Darou van Saint-Louis	20-12-2007	31-08-2011	2523432
	C01	Project van retentiebekkens en van opwaardering van boorputten in de regio's Diourbel,Fatick,Kaolack,Kaffrine en Thiès (BARVAFOR)	13-01-2011	30-09-2017	11906418
Government partner country: financial coop. - DGCD partner	C01	Project voor de uitrusting van een nationaal centrum voor de coördinatie van de maritieme hulpverlening vanuit Dakar	18-10-2011	19-08-2022	4000000
INDIRECT BELGIUM general/not specified	C01	Loterie Nationale -- MDG's Eau, source de vie			
NGO Le Monde selon les femmes	B01	Steun aan de vrouwen die visserijproducten verwerken door de ontwikkeling van hun ondernemers- en politieke capaciteiten	01-01-2008	31-12-2010	69820
NGO local in recipient country	C01	Adduction d'eau potable Mbayene région de Thiès		31-12-2012	249964
NGO Solidagro (ex Bevrijde Wereld - BW/Terre Nouvelle - TN)	C01	Approvisionnement en eau potable dans le village de Wélia Mbounka, communauté rurale de Medina Yero Foulah, regio Kolda	01-01-2008		108092
	C01	Initiatives pour la sécurité alimentaire		31-12-2009	2846038
Private sector donor country	C01	Expertise pour l'identification d'une intervention en appui à l'amélioration de l'accès à l'eau potable et à l'assainissement en milieu rural	01-01-2012	31-07-2012	19455
Vereniging van Vlaamse Steden en Gemeenten - VVSG	C01	Coopération internationale communale - Vereniging van Vlaamse Steden en Gemeenten	01-01-2006	31-12-2013	305438

Table 3. Belgian organizations in the water sector that reported having had projects in Senegal 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	DBA	Défi Belgique Afrique	https://ongdba.org/	Agriculture Familiale -Ecms-Projets Sud -Sensibilisation	DBA est une ONG qui souhaite encourager et accompagner les citoyens de Belgique, en particulier les jeunes dans une prise de conscience des enjeux du monde contemporain. Nos projets se basent sur deux principaux axes : 1) L'éducation à la citoyenneté mondiale et solidaire 2) L'agriculture familiale. La problématique de l'eau est une de nos principales préoccupations pour les projets SUD.
	BRC	Belgian Red Cross	www.croix-rouge.be	Nutrition-Water	/
	CRB	Croix-Rouge de Belgique	www.croix-rouge.be	WASH-Réduction Des Risques De Catastrophes-Nutrition (Wash In Nut)	/
	ETM - KDW	Enfance Tiers Monde/Kinderen Derde Wereld	www.efancetiersmonde.be	Vulnerable Children And Youth-Empowerment- Re-Integration	/
		Eclosio	www.eclosio.org	Access to irrigation-Gestion Participative De L'Irrigation-Communauté D'Agriculteurs Usagers De L'Eau-Système Irrigué Décentralisé-Développement Rural Et Péri-Urbain	Government-recognised NGO de l'Université de Liège - Gembloux
		Autre Terre	www.autreterre.org	Agroecology- Waste	/
		Solidagro	www.solidagro.be	Agroecological Agriculture	/
	ULB-C	ULB-Coopération	www.ulb-cooperation.org	Villages-Adduction-Eau Potable-Eau Productive-Puits-Forages	/

Sector	Acronym	Name	Website	Keywords	Description
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 and fo
Platform / group / center	Ovo	ondernemers voor ondernemers	www.ondernemersvoorondernemers.be	Entrepreneurship- Loans	/
Private sector organisation	IS	ISpatial	www.ispatial.com	Information System-Sig- Geodatamanagement-Data Capture-Data Collection	/
	Eloy	Eloy Water	www.loywater.com	Prefabricated Solutions- Ready-To-Use Solutions- Water Treatment	/
		Metaphora		Strategy- Strategic Plans	/
	Hydro-rdi	Hydro-R&D International	www.hydro-rdi.eu		/
		Sotrad Water	www.sotradwater.be	Treatment- Pumps- Ultra Filtering- Stockage- Solar	/
	SHER	SHER Ingéneurs-Conseils s.a.	www.sher.be	Impact Research- Water Treatment- Alimentation- Potable Water- Irrigation- Hydroelectricity	Water research office
Public agency	SPW - DEE	Service Public de Wallonie, Département Environnement et Eau		International Cooperation- Public Administration	/
	AWEX	Agence wallonne à l'Exportation et aux Investissements étranger	https://www.awex.be/	International funding-Mobilité- Investissement-Exportation	AWEX aide les entreprises wallones à investir à l'étranger à travers, notamment, des entreprises dans le secteur de l'eau.
	INASEP	Intercommunale Namuroise de Services Publics	http://www.inasep.be/	Rain water -Pôle De Compétences- Assainissement -Distribution	INASEP assure la production et la distribution de l'eau et la gestion des équipement techniques des communes et d'autres partenaires publics. INASEP est considérée comme un pôle de compétences dans le domaine de l'eau et dispose de bureau d'études spéciaux.

Sector	Acronym	Name	Website	Keywords	Description
Public utility / enterprise	SWDE	Société wallonne des eaux	www.swde.be		/
	VLIR-UOS	Vlaamse Interuniversitaire Raad - Universitaire Ontwikkelingssamenwerking	www.vliruos.be	Higher Education- Outreach	/
Research institute or team; Knowledge center	KU Leuven-LBEG	KU Leuven	bio.kuleuven.be/eeb/lbeg	Fish-Ecology-Evolution-Biodiversity-Genomics-Fisheries	/
	GxABT - Uliège	ULiège-Gembloux Agro-Bio Tech	www.gembloux.uliege.be	Hydrology- Conservation- Irrigation	/
	Aquapole	Aquapole ULiege	www.aquapole.ulg.ac.be	Hydrology- Hydrogeology- Modelling- Quality- Integrated Management	/
	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	/
	ULB - SERM	Université Libre de Bruxelles	www.ulb.ac.be/sciences/biocomplexity/	Ecosystems- Remote Sensing- Socio-Ecology- Ecology- Mangrove- Aquatic Biodiversity	/
		ULB - Systems Ecology & Resource Management Unit	https://www2.ulb.ac.be/sciences/biocomplexity/	Ecosystem Services Assessment- Biodiversity Conservation Research- Capacity Building- Mangroves- Coastal Resources Management- Impact Assessment	/
	UCLouvain -ELI-GERU	UCLouvain, Earth and Life Institute	https://uclouvain.be/en/research-institutes/eli/eli	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.

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

Authors	Belgian Insitutions	Title	Year	Journal	DOI
Sow S., Polman K., Vereecken K., *Vercruyse J., Gryseels B., de Vlas S.J.	Institute of Tropical Medicine, Antwerp, Belgium. *Ghent University, Department of virology, Parasitology and Immunology, Gent.	The role of hygienic bathing after defecation in the transmission of <i>Schistosoma mansoni</i> .	2008	Transactions of the Royal Society of Tropical Medicine and Hygiene	https://doi.org/10.1016/j.trstmh.2008.02.016
Brou Y.C., Zézé A., Diouf O., Eyletters M.	Université Libre de Bruxelles, Laboratoire de Physiologie et d'Agrotechnologies végétales, Bruxelles.	Water stress induces overexpression of superoxide dismutases that contribute to the protection of cowpea plants against oxidative stress.	2007	African Journal of Biotechnology	https://doi.org/NA
Le Roux D.Y., Séne A., Rostand V., Hanert E.	Université Catholique de Louvain, Institut d'Astronomie et de Géophysique, Louvain-la-Neuve.	On some spurious mode issues in shallow-water models using a linear algebra approach.	2005	Ocean Modelling	https://doi.org/10.1016/j.ocemod.2004.07.008
Sow S., De Vlas S.J., Polman K., Gryseels B.	Institute of Tropical Medicine, Antwerp.	Hygiene practices and contamination risks of surface waters by schistosomae eggs: The case of an infested village in Northern Senegal [Pratiques hygiéniques et risques de contamination des eaux de surface par des œufs de schistosomes: Le cas d'un village infesté dans le nord du Sénégal]	2004	Bulletin de la Societe de Pathologie Exotique	https://doi.org/NA
Diouf O., Brou Y.C., Diouf M., Sarr B., Eyletters M., Roy-Macauley H., Delhaye J.P.	Université Libre de Bruxelles, Laboratoire de Physiologie et d'Agrotechnologies végétales, Bruxelles.	Response of Pearl Millet to nitrogen as affected by water deficit.	2004	Agronomie	https://doi.org/10.1051/agro:2004001