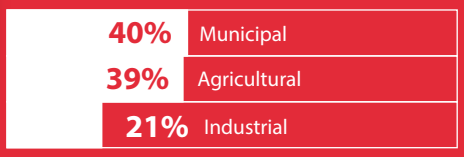
UN WATER

the Gambia

UN-Water Country Brief

		year
Total population (UN Population Division)	**1.83** million inhabitants	2012
Total area	**11 300** km²	
Population density	**162** inhabitants/km²	2012
Human Development Index (UNDP) (between 0 and 1; 1 is highest) Country rank (total 186 countries; 1 is highest) Gender Inequality Index (0 is equality between women and men; 1 is least equality)	**0.439** **165** **0.594**	2012
Water, sanitation and hygiene-related deaths % of total deaths (WHO)	**13.5** %	2004
Long-term average annual precipitation (CRU CL 2.0)	**836** mm/year	
Long-term average actual renewable water resources (FAO AQUASTAT)	**8 000** million m³/year	
Actual annual renewable water resources per capita (FAO AQUASTAT)	**4 384** m³/inhabitant	2012
% of total actual renewable freshwater resources withdrawn (MDG Water Indicator) (FAO AQUASTAT)	**1.3** %	2005
Total area equipped for irrigation (FAO FAOSTAT)	**5 000** ha	2011
% of the cultivated area equipped for irrigation (FAO FAOSTAT and AQUASTAT)	**1** %	2011
% of irrigation potential equipped for irrigation (FAO AQUASTAT)	**6** %	2011
Ramsar sites (Ramsar) – number – total area	**3** sites **31 244** hectares	2013

Water withdrawals by sector (total 102 million m³ in 2005)



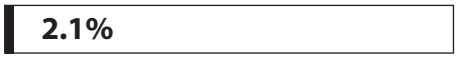
The Money Stream

From 2002 to 2011, the government has invested US$ 1.70 million (in constant 2010 US$) on average per year on water-related infrastructure and programmes. Government's investments were primarily channeled into water supply and sanitation on large systems (61.4 percent) and agricultural water resources (21.3 percent).

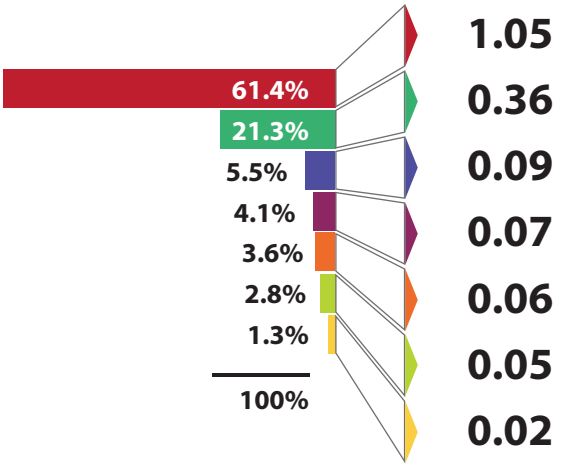
During the same period, official development assistance (ODA) gross disbursements amounted to US$ 5.67 million on average per year, channeling its disbursements mainly into: water supply and sanitation (62.6 percent) and water resources policy and administrative management (14.8 percent).

Over the period 1999 to 2011, the Government of Gambia's water-related investments accounted for an estimated 2.1 percent of total government expenditure.

Estimated % of water-related investment to total government expenditure (1999 to 2011)

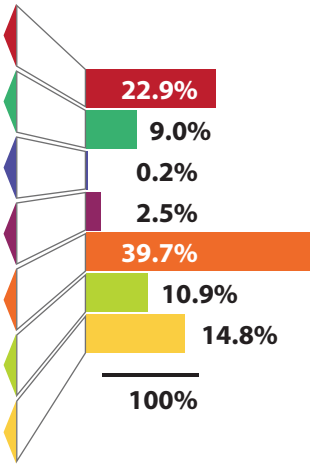


Annual average government expenditure during the period 2006 - 2010 and budget during the period 2002 - 2005 and 2011
(million constant 2010 US$)



Water supply and sanitation in large systems	1.05
Agricultural water resources	0.36
Water resources protection	0.09
River development	0.07
Basic drinking water supply and basic sanitation	0.06
Disaster prevention and preparedness/flood protection and control	0.05
Water resources policy and administrative management	0.02
total annual average	1.70

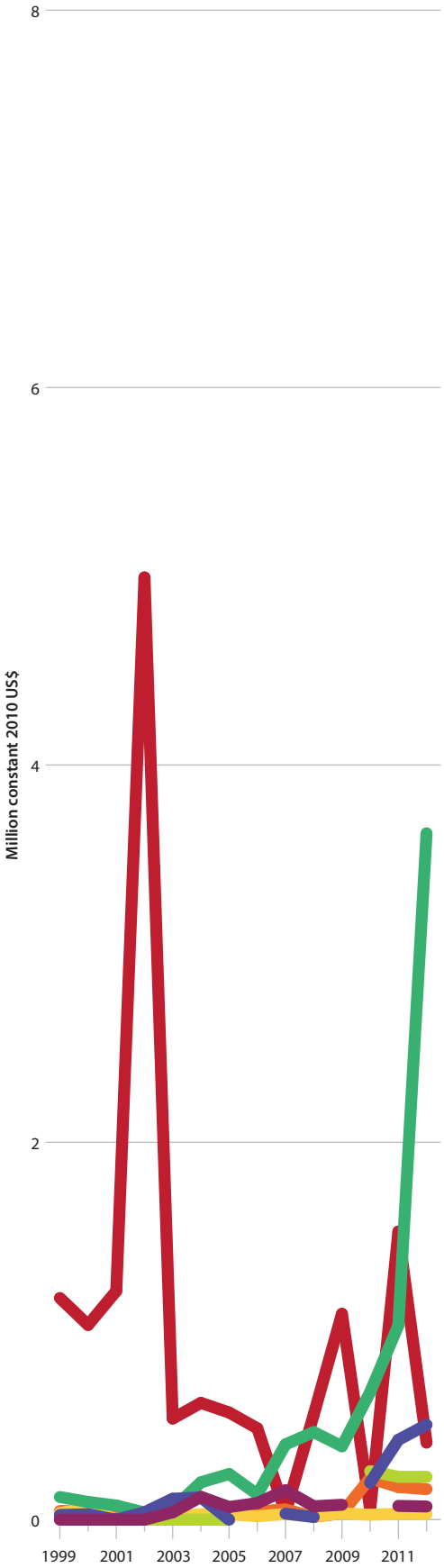
Annual average official development assistance gross disbursements during the period 2002 – 2011
(million constant 2010 US$)



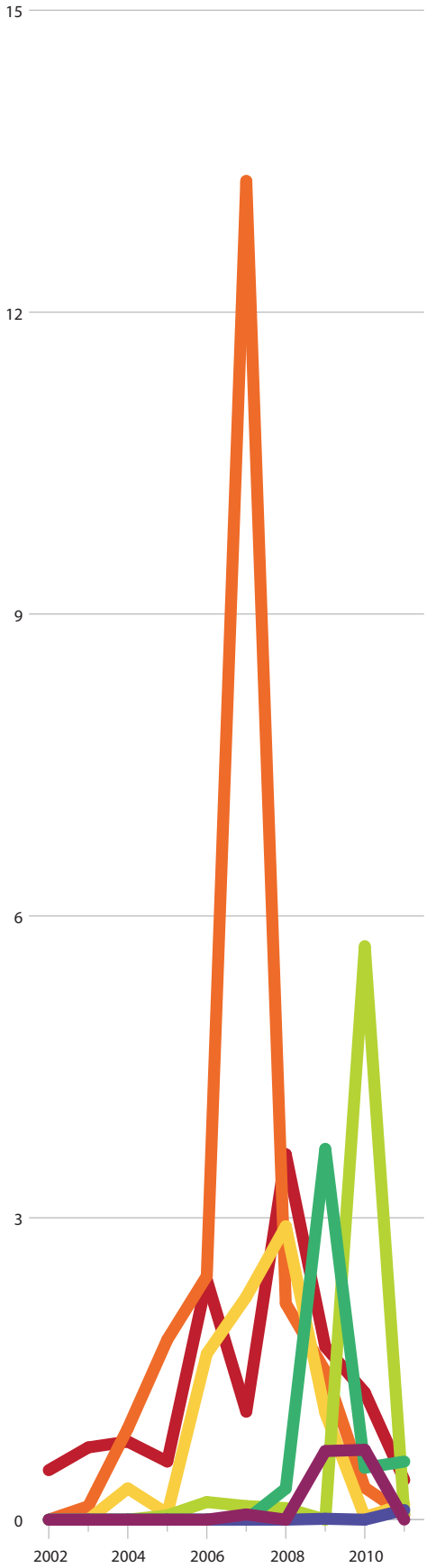
	1.30
	0.51
	0.01
	0.14
	2.25
	0.62
	0.84
total annual average	5.67

Status and Trends

Government expenditure during the period 2006 – 2010 and budget during the period 1999 - 2005, 2011 & 2012
(million constant 2010 US$)



Official development assistance gross disbursements during the period 2002 - 2011
(million constant 2010 US$)



Water-related government investments during the period 1999 to 2012:

- Water supply and sanitation - large systems received the highest amount overall and in most years. A peak occurred in 2002, when it received over 98 percent of water-related investments.
- A downward trend in the government's water-related investments started in 2002 before increasing again in 2008, driven by investments in water supply and sanitation - large systems as well as in agricultural water.
- There are several years for which data is not available in most of the water-related investment categories.

Water-related official development assistance during the period 2002 to 2011:

- Overall water-related ODA disbursements increased notably from 2006 onwards, with a dip in 2011.
- From 2004 to 2008, ODA disbursements were mainly concentrated on basic drinking water supply and basic sanitation accounting for 36 percent (2006) to 100 percent (2002) of all reported water-related ODA.
- Water supply and sanitation – large systems received increased ODA disbursements from 2005 onwards with two peaks in 2006 and 2008, when it received 36 and 40 percent respectively of all water-related ODA disbursements.

Actual expenditure refers to the amount spent by the government during a given year. Where actual expenditure data is not available, the government budget is used and refers to the amount that the government reportedly budgeted for the given year. The OECD Creditor Reporting System categories were chosen for the collection of these water-related investments and the data was obtained by the WCB project through in-country research in cooperation with the government (during 2012), while ODA data stems from the OECD Creditor Reporting System (collected December 2012).

Water supply and sanitation in large systems: Water desalination plants; intakes, storage, treatment, pumping stations, conveyance and distribution systems; sewerage; domestic and industrial wastewater treatment plants.

Basic drinking water supply and basic sanitation: Water supply and sanitation through low-cost technologies such as hand-pumps, spring catchment, gravity-fed systems, rainwater collection, storage tanks, small distribution systems; latrines, small-bore sewers, on-site disposal (septic tanks).

Water resources policy and administrative management: Water sector policy, planning and programmes; water legislation and management; institution capacity building and advice; water supply assessments and studies; groundwater, water quality and watershed studies; hydrogeology. Excluding agricultural water resources.

Disaster prevention and preparedness/Flood protection and control: Disaster risk reduction activities such as developing knowledge, natural risks cartography, legal norms for construction; early warning systems; emergency contingency stocks and contingency planning including preparations for forced displacement. Floods from rivers or the sea; including sea water intrusion control and sea level rise related activities.

Agricultural water resources: Irrigation, reservoirs, hydraulic structures, groundwater exploitation for agricultural use.

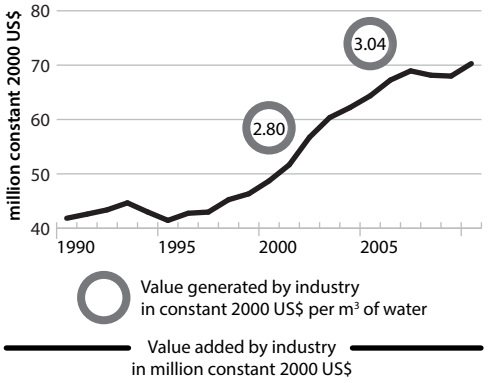
Water resources protection: Inland surface waters (rivers, lakes, etc.); conservation and rehabilitation of groundwater; prevention of water contamination from agrochemicals, industrial effluents.

River development: Integrated river basin projects; river flow control; dams and reservoirs. Excluding dams primarily for irrigation and hydropower and activities related to river transport.

Water Intensity in Industry

Impact for development
During 2000 to 2005, the value generated by industry per m³ of water increased by 2 percent annually. There is no significant conflict between the industry and other water users, since there is a sufficient quantity of water available at this point.

Value generated by industry per m³ of water
(FAO AQUASTAT, World Bank)



Value generated by industry in constant 2000 US$ per m³ of water

Value added by industry in million constant 2000 US$

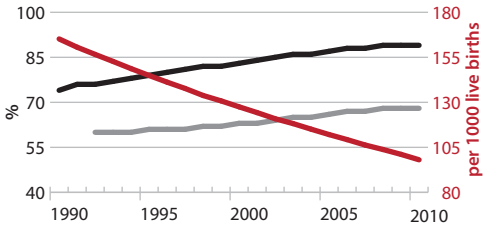
Drinking Water Supply and Sanitation

Impact for development
Water, sanitation and hygiene factors were responsible for over 2 400 deaths in 2004, which accounted for 13.5 percent of all deaths in the Gambia. A 2012 UNICEF/WHO analysis of data from 25 countries in sub-Saharan Africa, representing 48 percent of the region's population, revealed that women and girls bear primary responsibility for water collection, at considerable cost in terms of their time. In these 25 countries, it is estimated that women spend a combined total of at least 16 million hours each day collecting drinking water; men spend 6 million hours; and children, 4 million hours.

Accession of the International Covenant on Economic, Social and Cultural Rights (ICESCR) :
29 December 1978

(The right to water is implicit within the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of health outlined in the ICESCR.)

Access to drinking water and sanitation & under-5 child mortality
(UN Inter-agency Group for Child Mortality Estimation (IGME) and WHO/UNICEF Joint Monitoring Programme)



Improved drinking water source
Improved sanitation facilities
(both indicators above in % of total population)
Under 5 child mortality rate
(probability of dying by age 5 per 1000 live births)

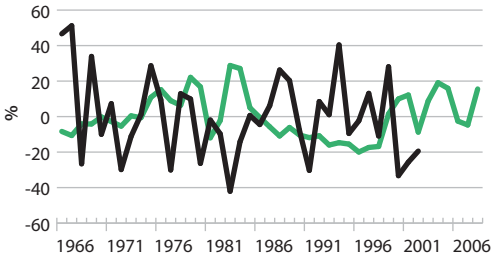
There was an overall increase of 15 percent from 1992 to 2010 in the use of improved drinking water sources. Fifteen percent of the rural and 8 percent of the urban population remained in 2010 without an improved drinking water source. Trends in the use of improved sanitation facilities have lagged in comparison. Thirty-two percent of the total population did not use an improved sanitation facility in 2010. Rural areas still lag behind urban areas, in the percentage of the population using improved sanitation facilities.

Surface water is rarely used as a source of potable water in the Gambia, because of the continuously saline conditions, which exist in the lower reaches of the River Gambia and its tributaries, where the population centers and tourism facilities are located. The potable water for urban areas, tourism, industry, irrigation and livestock watering is supplied by groundwater sources.

Irrigated Agriculture

Impact for development
In 2011, agriculture accounted for 19 percent of gross domestic product. In 2012, women accounted for 54 percent of the economically active population in agriculture. The main irrigated crop is rice. The scope of intervention in extending irrigation and water storage is currently below what is required to maximize production. Irrigation for agriculture is done on a small scale considering the opportunities for expansion in the area of cultivation.

Rainfall variability and agricultural GDP
(FAO AQUASTAT, World Bank)

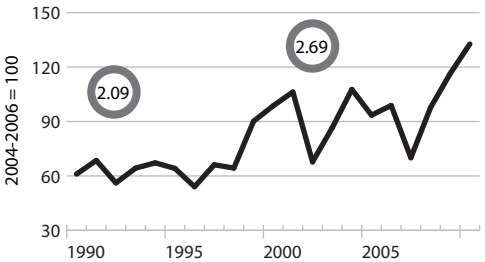


National rainfall index variability (percentage of deviation from average national rainfall index)

Variability in agricultural GDP (percentage of deviation from trend of agricultural goods produced per km² of agricultural land)

Agricultural farming in the Gambia is characterized by subsistence rainfed production, depending on the distribution and amount of rainfall.

Agriculture net production index and irrigation potential equiped for irrigation (FAO AQUASTAT, World Bank)



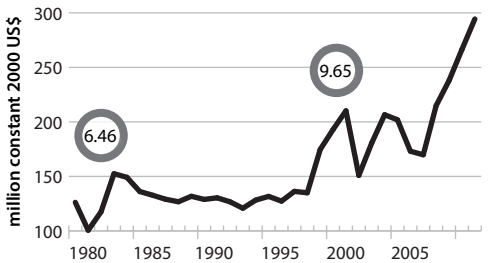
Percentage of irrigation potential equipped for irrigation (%)

Agriculture Net Production Index Number (2004-2006 = 100) Int.$

A well coordinated expansion of irrigated areas will increase productivity, food security and raise farmers' income. The assessment of different irrigation schemes indicate that tidal irrigation is more cost effective than pump irrigation. However, salt intrusion from the ocean to the River Gambia is threatening tidal irrigation.

Disputes over land ownership and competition among different water users pose an additional challenge.

Value generated by agriculture per m³ of water
(FAO AQUASTAT, World Bank)



Value generated by agriculture in constant 2000 US$ per m³ of water

Agriculture, value added in million constant 2000 US$

During 1982 to 2000, the value generated by agriculture per m³ of water increased by 2 percent annually.

Water - related Disasters*

Impact for development
According to the UNISDR's risk profile for the Gambia, 0.11 percent of the population and 0.21 percent of its GDP is exposed to floods. A total of seven floods have been reported over the last 15 years, resulting in 68 deaths and over 85 000 affected people. Four storms have occurred over the same period leading to 5 deaths and over 16 000 people affected. The Gambia's low elevation topography puts some of its areas at significant risk from sea level rise, according to the 2007 Gambia National Adaptation Programme of Action (NAPA) on Climate Change.

Year**	Number of Events	Deaths	Affected
1999	1	53	32 000
2001	1	1	250
2003	1	3	8 019
2004	1	2	6 137
2007	1	0	300
2008	2	0	700
2009	2	5	16 608
2010	2	9	38 961
Note: No data on economic damage exists			

EM-DAT, the OFDA/CRED International Disaster Database

* 'Water-related disasters' within the scope of this WCB study do not include droughts.

** Only years for which data is available are listed.

Environment and Ecosystem Health

Impact for development
Pumping irrigation water from the River Gambia has a potentially negative impact on the salt front in the river and thus on the environment overall. It has been estimated that if 1 m^3/s is pumped from the Upper River during the dry season, the salt front can move up to 4 km upstream. To avoid an increase in salinity, the safe limit for irrigation from the River Gambia, without major dam construction, was estimated to be a maximum of 2 400 hectares in the dry season. Deforestation is a problem due to the high and ever-increasing demand for fuel wood. Wastewater treatment ponds are deemed to be small and insufficient to handle the discharge volumes received. The need for bigger chambers and ponds remains a serious challenge to meet demand. Industrial and domestic effluents are discharged without treatment, which can cause pollution of the receiving water bodies, namely the groundwater.

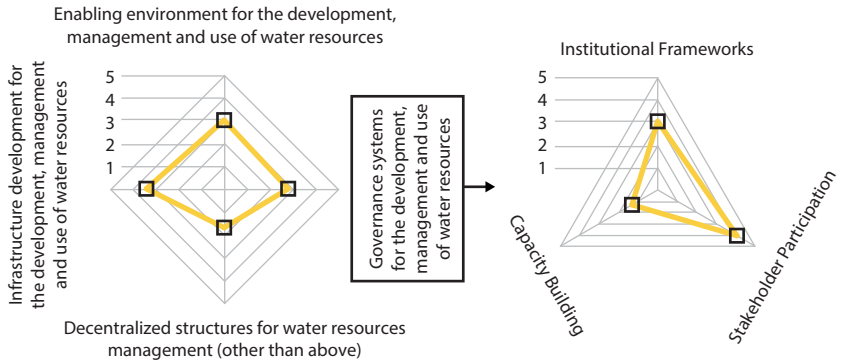
Water quality index 2010
(YCELP/CIESIN/Columbia University, WEF, JRC/European Commission)

A score of 100 indicates optimal performance.

Tracking Water Governance

Impact for development
Implementation of the first National Water Policy, approved by the cabinet in 2007, ensures the application of the principles of Integrated Water Resources Management (IWRM). Furthermore strengthening the capacities of water institutions and reforming the legislature to respond to the needs are some of the challenges the Gambia faces. Other challenges include shortage of human capacity to implement the IWRM approach, to assess water resources, as well as to manage hydro-meteorological data and information systems. There is also a shortage of equipment and facilities for data collection, processing and dissemination.

UN-Water survey on integrated approaches in the development, management and use of water resources governance, 2012 (UN-Water)



1 Under development
2 Developed but implementation not yet started
3 Implementation started
4 Implementation advanced
5 Fully implemented

Is the right to sanitation/drinking-water explicitly recognized in policy or law?

sanitation		drinking water	
urban	rural	urban	rural
Progressing with some elements in place	Progressing with some elements in place	Not yet developed	Not yet developed

Can people claim their human right to sanitation or drinking-water in a domestic court?

sanitation		drinking water	
urban	rural	urban	rural
No	No	no response	no response

UN-Water GLAAS (WHO, 2012)

There are a number of institutions involved in water management in the Gambia. For example to protect and manage ecosystems, the Department of Parks and Wildlife and the Department of Forestry play a role. The Department of Water Resources and the National Water and Electricity Company are involved in water quality monitoring. Policy guidance and technical support for water management in agriculture is provided by the Ministry of Agriculture (MOA).

Rapid Assessment

Overall

Pressures on water

The Gambia River is a transboundary river shared with three other countries: Guinea Bissau, Guinea, and Senegal. The entire territory of the Gambia lies within the Gambia River Basin. Continuously saline conditions exist in the lower reaches of the River Gambia and its tributaries, where the population centers and tourism facilities are located. The key priorities for water in the Gambia are: operationalization of the National Water Policy to ensure IWRM, strengthening of the human and infrastructure capacities of sector institutions, improvement of groundwater management (the main source of domestic water supply throughout the country), and empowerment of communities to participate effectively in water management. Existing legislation is not in harmony with the new policy and sector institutions are not structured and organized to implement an integrated approach to water management.

Investments

Over the period 1999 to 2011, the Government of the Gambia's water-related investments accounted for an estimated 2.1 percent of total government expenditure. Government investments were essentially targeting water supply and sanitation – large systems and agricultural water resources. There are several years for which data is not available in most of the water-related investment categories. ODA gross disbursements were mainly directed at basic drinking water supply and basic sanitation, and water supply and sanitation - large systems.

Assessments

Irrigated agriculture ●●●○○

During 1982 to 2000, the value generated by agriculture per m^3 of water increased by 2 percent annually. By developing tidal irrigation where appropriate and improving cultivation practices, the Gambia could increase output.

Drinking water supply and sanitation ●●○○○

Some 11 percent of the total population remained without improved water sources, most predominantly in rural areas. Thirty-two percent of the total population did not use an improved sanitation facility in 2010.

Water intensity in industry ●●●●○

During 2000 to 2005, the value generated by industry per m^3 of water increased by 2 percent annually.

Water-related disasters ●●●○○

The Gambia's National Adaptation Programme of Action (NAPA) is quite detailed and most of the priorities identified are targeted by priority projects. Such projects are however limited, resulting in the fact that a number of key vulnerable sectors, including energy, human health, gender and forestry, have not been addressed.

Environment and ecosystem health ○○○○○

Insufficient data for analysis.

Tracking governance ●●●○○

Operationalization of the National Water Policy, legislative reform, and shortage of data collection, processing and dissemination, are among the key challenges.

Data Quality

★☆☆☆☆

Accurate up-to-date figures on irrigated areas are not available.

★★★☆☆

Limited data on drinking water quality is available.

★★☆☆☆

Data is not readily available.

★★☆☆☆

Limited data available for analysis.

★☆☆☆☆

Insufficient data for analysis.

★★★★☆

The Gambia has participated in the UN-Water questionnaire on Integrated Approaches in the Development, Management and Use of Water Resources.

Legend:

The rapid assessment of the situation above, based on available data, was established in conjunction with in-country experts and officials. It provides an overview of trends according to the following:

●○○○○ trends are of significant concern

●●○○○ trends are of concern

●●●○○ trends are stable or, progressing on certain issues but not on others

●●●●○ trends show some measure of improvement in all relevant indicators assessed

●●●●● trends show significant improvement and there is no concern

○○○○○ insufficient data

Accurate assessments of progress require relevant, accurate and timely data. The above data quality assessment ranges from:

★☆☆☆☆ very poor → ★★★★★ very good

Data Concerns

Data on the status and pressures of water bodies is an essential decision-making tool for the rational management of water resources. At present, the monitoring capacity in the Gambia is clearly insufficient to give reliable data both on water quantity and quality. The lack of reliable data would cause challenges with regard to a proper management of water resources, e.g. prioritization of actions and investments, and may complicate the introduction of integrated water management principles. Assessment of the anthropogenic pressures on water is lacking, as is data on the quality of water resources.

Investments in coordinated data collection, collation, analysis and dissemination is vital to demonstrate the benefits of water-related investments to governments, donors and also private investors.

It is to be noted that it is virtually impossible to find national-level gender-disaggregated data for almost all themes contained in the UN-Water Country Briefs.

Disclaimers

- The most recent and updated information can be found in the original databases cited throughout.
- The rapid assessment methodology presented here is an advocacy tool designed to generate debate and attention to the issues, and is developed in conjunction with national government focal points.
- Data presented herein stems either from existing databases or was collected from national reports, experts and institutions, and in some cases raw data underwent various manipulations to categorize the information for this presentation.
- Due to data limitations, the investment-related estimates may not include water-related investments that are counted under other categories of investments, and some investment categories (ie: disaster prevention and preparedness) may include some investments that are not directly water-related. Moreover, water being a crosscutting issue, investments in other parts of the government (not calculated here) may also benefit water management.
- The words investments / invested / funded for ODA refer to gross disbursements of ODA according to the OECD definitions. The words investments / invested / funded for government refer to government expenditure (2006 – 2010) and government budget (1999 - 2005, 2011 & 2012). In addition, investment data and analysis do not include any other forms of investment (such as, private sector investments).

UN WATER

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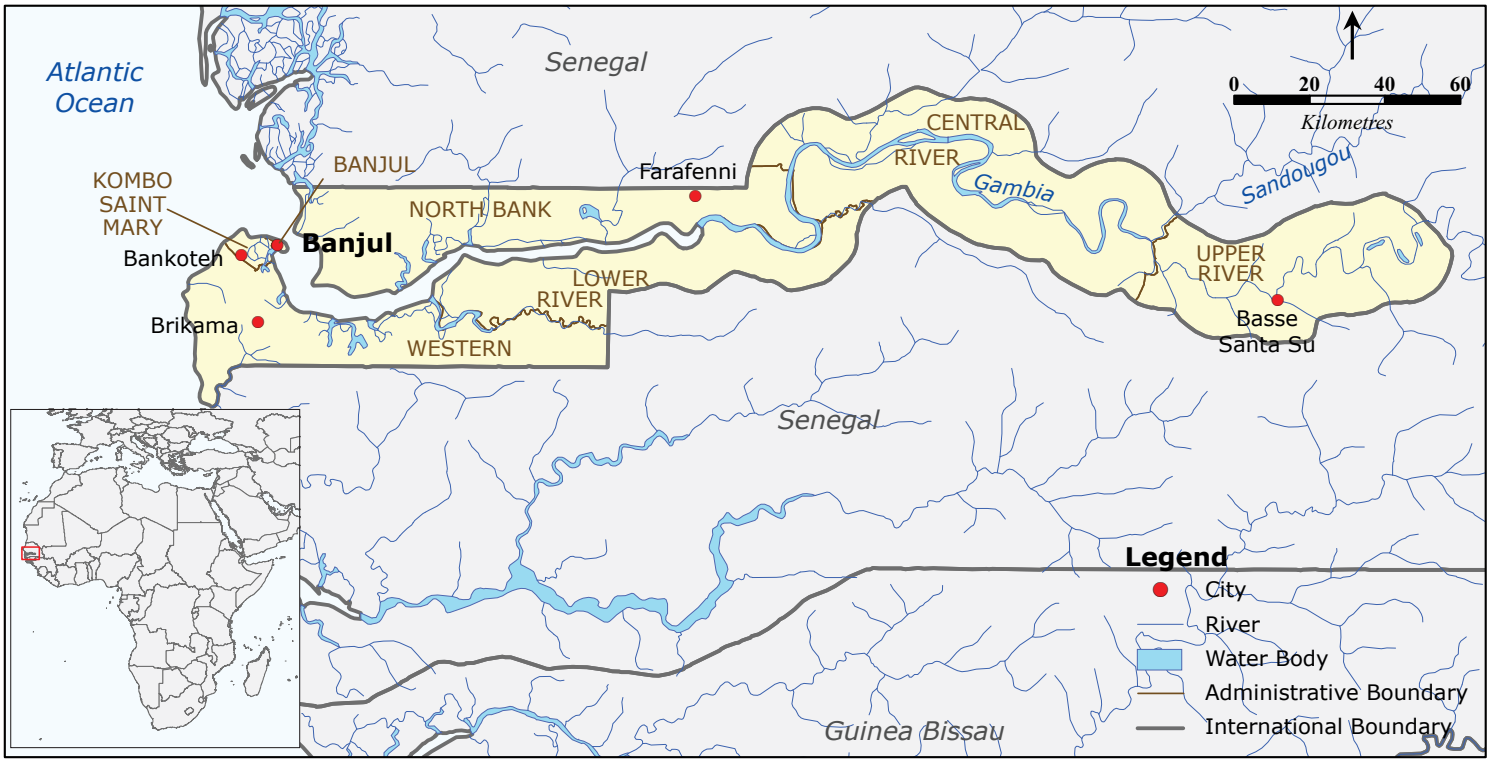
Additional information on the project, data and methodologies can be accessed at:

http://www.unwater.org/WaterCountryBriefs.html



FAO - AQUASTAT, 2005

GAMBIA

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